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Canada, Land Use in Canada,
Special Committee on

2nd Session, 24th Parliament, 1959 (Senate), 1959

THE SENATE OF CANADA 479

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PROCEEDINGS
OF THE
SPECIAL COMMITTEE OF THE SENATE
ON
LAND USE IN CANADA

No. 1

THURSDAY, FEBRUARY 26, 1959

The Honourable Arthur M. Pearson, Chairman

WITNESS:

Dr. J. F. Booth, Director, Economics Division, Department of Agriculture

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour
Basha
Bois
Boucher
Bradette
Buchanan
Cameron
Crerar
Emerson
Gladstone
Golding

Higgins
Horner
Inman
Leger
Leonard
MacDonald
McDonald
McGrand
Methot
Molson
Pearson

Power
Smith (*Kamloops*)
Stambaugh
Taylor (*Norfolk*)
Taylor (*Westmorland*)
Turgeon
Vaillancourt
Wall
White—31.

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—
Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

THURSDAY, February 26, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 11.00 a.m.

Present: The Honourable Senators: Pearson, *Chairman*; Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Golding, Higgins, Inman, Leonard, MacDonald, McDonald, McGrand, Smith (*Kamloops*), Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon and Wall—(19).

In Attendance: Mr. Ralph A. Stutt, Head, Land Economics Unit, Economics Division, Department of Agriculture, and the official reporters of the Senate.

A steering Committee was appointed as follows: The Honourable Senators: Pearson, *Chairman*; Bois, *Deputy Chairman*; Basha, Cameron, McDonald, Power, Taylor (*Norfolk*), Taylor (*Westmorland*) and Wall.

The Committee proceeded to the consideration of the order of reference of Tuesday, February 17, 1959.

Dr. J. F. Booth, Director, Economics Division, Department of Agriculture was heard and questioned.

At 12.30 p.m. the Committee adjourned until Thursday, March 5, 1959, at 10.30 a.m.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, Thursday, February 26, 1959.

The Special Committee on land use in Canada met this day at 11.00 a.m.
Senator Arthur M. Pearson in the Chair.

The CHAIRMAN: Honourable senators, we have with us this morning Dr. J. F. Booth, Director of the Economics Division of the Department of Agriculture at Ottawa, who is replacing Dr. Taggart as a witness before us. Dr. Taggart was called to an urgent meeting.

We have with us also Mr. R. A. Stutt who is going to be our special consultant during the sittings of the committee. Mr. Stutt will assist us in compiling the information contained in the briefs presented to us, and will assist us in finalizing a proper report, particularly with respect to the small farm unit problem. That is the picture as we see it at this time.

One of our first steps is, I think, to appoint a steering committee, and empower them to act. The matter was left in my hands, and I named the same committee we had last year, adding to it the name of Senator Cameron to take the place of our late colleague Senator Hawkins.

The steering committee will then consist of Senators Basha, Pearson, Power, Taylor (*Norfolk*), Bois, McDonald (*Kings*), Taylor (*Westmorland*) and Wall.

Senator GOLDING: I move that the steering committee be so appointed.

Hon. SENATORS: Carried.

The CHAIRMAN: Gentlemen, we have to settle the problem of what the work of the committee will be. I gave a rough outline of it in the Senate the other day, although I apparently was out of order in doing so. We are aiming at having a discussion with the Department of Agriculture with respect to the economic problem of the small farms in some of the Canadian provinces. The department feels that the committee might give them some useful suggestions as to some solution for that problem. Our difficulty, is, as was pointed out in the steering committee yesterday, just how we should tackle the problem, because it is not the same in all areas. There are various causes for the difficulties that face the small farmer, such as lack of fertility of soil and other conditions, which has today brought him to an uneconomical operation.

I think our proper procedure at that time would be to hear from Dr. Booth, who no doubt can give us some ideas from the point of view of the Department of Agriculture.

Dr. J. F. Booth, Director, Economics Division, Department of Agriculture:
Mr. Chairman and gentlemen, first let me say on behalf of the Economics Division which I represent that we are very happy indeed to have this opportunity of being associated with the work of this committee. We are very pleased to be able to make Mr. Stutt available to work with you as much as you wish during the period of your study of this problem.

Senator McDONALD (*Kings*): It might be useful for the committee to know precisely who Dr. Booth is. I know that Dr. Booth has been head of the Economics Branch of the Department of Agriculture for many years—how many years, doctor?

Mr. BOOTH: Since 1929.

Senator McDONALD (*Kings*): And I know that he has done very fine work and a good deal of such work.

Mr. BOOTH: Thank you very much, senator. The Economics Division has been interested in the farm problem for many years, and we have made a great many economic studies of agriculture—farm management, land use, land classification studies, cost accounting work, in all the provinces—over this period that Senator McDonald has spoken of.

Consequently we have a good deal of basic information that would be helpful as opportunity permits its presentation.

Now, I am somewhat at a loss to know how to speak of this problem this morning, because I have not had much briefing by my own deputy minister as to the discussions he has had with your Chairman, or with the steering committee.

I have known something of what was going on for two years, because Dr. C. C. Spence of our division also worked with the committee last year and Dr. Taggart discussed with me last week a possible field of activity that would be of great interest to the Department of Agriculture and, we think, to agriculture generally throughout Canada. It is on the basis of that background and brief discussion of last week and for a few minutes this morning that I come here today.

In our discussion last week it was Dr. Taggart's feeling that, having regard to the things we have on the agenda that are of interest in the program, a study of the small farm problem in Canada by this committee would be of great use.

We recognize that the problem is one that confronts the provinces as much as, and perhaps in many respects more than, it does the federal Government; but you cannot separate the interests of the federal and the provincial governments in dealing with a matter of this kind we are all definitely concerned with this question.

It was suggested by Dr. Taggart, though I am not quite sure that I am in order in introducing the matter this way, that this matter ought to be taken up with the provinces,—with the provincial departments of agriculture—with a view to bringing out as much information from their experience and as much information regarding their interests and their wishes as possible to tie in with what the federal Government may have to offer.

My understanding also is that Mr. Stutt, might be concerned with trying to bring out of the previous presentations to the committee, for your consideration, matters that might have high priority at this time, and which would warrant a further follow-up and further study.

If you tie in with the provincial departments to obtain information from them; how far they go in that direction, and how far you wish to go, will be a matter for your consideration. But Mr. Stutt will be available to work with the committee on all aspects of this program which you wish to pursue.

Certainly, this small farm problem is a very important one. Probably 25 per cent of the farms in Canada are of the subsistence and part-time type. The census data in the different periods provide that kind of information, but we in agriculture have been concerned with it in trying to get an economic classification of these farms. Broadly speaking there are in the neighbourhood of 25 per cent of the farms that are not really commercial farms, not economically efficient in the commercial sense.

Senator GOLDING: What size of farms have you in mind?

Dr. BOOTH: Size has different meanings, many different connotations, senator. It is not very helpful to speak of size in terms of acreage or number of cattle. Quite frequently the breakdown used, is in terms of income. This was used by the census in 1951. Farms that had less than \$1,200 in 1951 comprise about 38 per cent of all farms.

Senator McDONALD (*Kings*): Is that gross?

Dr. BOOTH: Yes. That is the information supplied the census enumerator in 1951, and that would be gross income from the sale of farm products. That income was reported in different categories, and in the category below \$1,200 we find 38 per cent of the farms. A large proportion of these are farms that have a very considerable acreage. You might find several hundred acres in some farms that are not very productive. Many of them will be small undertakings used as residential places for people who are working elsewhere, many of them nearing retirement and not particularly interested in the larger operation. Many are young people just getting started in farming. A very large proportion of these farms are conducted by people who have a secondary interest in agriculture. They work in cities or towns, and use the farm as a place of residence, others work on the highway, or for various public service institutions. They are not in the true sense, commercial farms.

Senator BARBOUR: In arriving at the \$1,200 income would you take into consideration the use of the farm house, the vegetables they use on the farm, and the fuel they get from the farm? Would that be considered in the \$1,200?

Dr. BOOTH: That would not be considered in the census classification I spoke of. I would wish to check on that, however, but in the determination of farm income by the Economics Division we take into account the so-called perquisites, that is the products consumed and the use of the farm house, as part of the total income of agriculture. Farm income is computed on several different bases and for different purposes by the Dominion Bureau of Statistics, by our own department and for the National Accounts and the results obtained depend on how you calculate it. But in our Economics Division calculations we take account of the perquisites; we get an estimate of the produce taken from the farm and the woodlot as well as the valuation of the farm dwelling.

Senator TAYLOR: Would it be true that in most farms it is the gross cash income and not the perquisites, such as Senator Barbour mentioned, that you take?

Dr. BOOTH: I am not quite sure that I get your point.

Senator TAYLOR: It is just cash income from the farm—and not what vegetables they use and the amount of wood they get off the farm. It is just what they receive in cash?

Dr. BOOTH: I think that is what is involved in the \$1,200,—just cash income.

The size of holding of a farm does not indicate anything precise. It is unfortunate that we speak generally in terms of acreage because a farm business might be quite large with a very small acreage and very small with a very big acreage, and therefore we use different measures in our studies. We use the man-work unit basis in determining size; we use capital structure as another basis of measuring the size of the farm. The point is that there is a very substantial number of these farms that are operating on a relatively inefficient basis.

As far as the Department of Agriculture is concerned, we would be very appreciative of anything that could be done to throw more light on the problems of these farms and their place in the national production scheme.

Senator BARBOUR: Is there not a fairly large percentage of people in every large city who have a very small income?

Dr. BOOTH: There is.

Senator BARBOUR: The same as on small farms.

Dr. BOOTH: Yes, that is quite true.

Senator BARBOUR: And perhaps they have not got as much security as the small farmer has.

Senator INMAN: And their standard of living would not be as good.

Senator WALL: If we are to make an assessment of the economic problems of 38 per cent of the farmers, the figure that has been mentioned, who have a gross income from cash sales of \$1,200 or less, we must in all justice and fairness assess the additional income that comes from the house, the use of the house, and that should be related to what the ordinary urban dweller might pay for the like type of accommodation. There are other factors that are very important if you are to assess the relative disparity with which you are dealing.

In that context, I think it would be most necessary to add all these other factors of income, plus—and the problem becomes rather crucial here—any additional income, whether we arrive at it by sampling or by some other method of determining earnings which these people do make supplementary to the income stated, so that we might get some sort of figure to give us an indication of their gross income from employment. They may be hauling gravel or doing all kinds of things, and it is only at that point that you can say that these people suffer this type of disparity and that therefore the problem is of this order.

Part of this investigation, I would suggest, must attempt to arrive at this calculation, if you wish to put it that way, of the relative disparity in income of all these people.

Dr. BOOTH: You are quite right, senator, and I may say that since we are on this subject we are very much concerned about the lack of information about it.

At the present time we have no information at all with respect to what we might call off-farm income—that is income obtained from work outside the farm. In the study which is now being conducted by the Dominion Bureau of Statistics, called Farm Income and Expenditure, a study in which some 10,000 or 12,000 farms are involved in the sample survey, we expect to get, for the first time, quite good information on various sources of income other than from the farm and we are hoping that this will produce something worthwhile which will enable us to compare farm income and non-farm income.

At the present time we are doing a considerable amount of guessing and a misuse is being made of the available data.

The United States has much more information than we have, and since there is a good deal of similarity between our conditions and theirs, I think we can rely to some extent on the information they have; and their information indicates a very large amount of income from sources off the farm.

Speaking from memory, I may say that in the United States from 30 to 35 per cent of the net income of persons on farms, is derived from non-farm sources.

Senator WALL: I am acquainted with some of these farms.

Senator GOLDING: What I feel concerned about particularly is the small farmer who is operating a piece of land making his living wholly at that work. The people who are operating farms, whether small or large, making their living mainly from sources outside the farm, are not the people that I am worrying about.

Senator BARBOUR: Another important matter you find on the small farms is this. You will find a larger percentage of children than you will find in the average family in Canada, and perhaps that is as good a place to raise children as there is to be found. There is less delinquency and the like. I think that is an important aspect that we should not overlook.

Senator McGRAND: That information could be obtained, I suppose, with respect to the number of children. It could be obtained from the census.

Dr. BOOTH: Yes.

Senator McGRAND: You mentioned lack of information, and that, to my mind, is the crux of the whole situation. The provincial Departments of Agriculture or Departments of Lands and Mines and Municipal Governments have not got this information right there in their own localities and that is the trouble. I made it my business last summer to investigate the taxation situation in some of these municipalities and I find there is a tendency for farmers to cut wood, the standing timber, and eventually abandon the farm. My opinion is that most of the delinquent taxes will be found in connection with that type of land. Eventually the land is sold and left to grow over a period of 30 or 40 years.

The reason why you cannot get information is that it has not been ferreted out in the provinces and in the municipalities. There must be machinery set up to investigate that very problem and to co-ordinate all the information that exists. After all, the departments of Lands and Mines and of Agriculture in the province of New Brunswick, let us say, do not co-ordinate their information to any great extent, and the same may be said of the municipalities. There is lack of research into this problem and this research is something which I suggest should be undertaken and developed.

Senator WALL: I wonder if I might follow up my plea for more information with respect to farm and off-farm income. Assuming that the problem may be solved, or that you may get more information from the studies laid down by the Dominion Bureau of Statistics, in the light of the information that Dr. Booth and the members of the Economics Division already have concerning the problems of these less economic units, I should like to know what some of the problem areas are and what is the nature of the problem that makes for these non-economic units. In other words, what are the problems you have found? Is it lack of fertility, lack of management, problems of marketing? What are the ostensible problem areas which this committee might look into as it investigates the non-economic holdings? You must have some information, very basic information, about some of the problem areas, on the basis of the experience that you have had with your colleagues, Dr. Booth, over the years. Could I ask you to be brave enough to indicate those?

Dr. BOOTH: There are many problem areas and I would think that is a problem this committee could devote some attention to. I would not try to answer the problem today; that is a contribution which I think the committee might make. But speaking in very general terms, on the basis of experience, I can say that there are quite a number of important areas in Canada that are having difficulties, and by and large the economic surveys indicate that size of business is the most important factor in determining income and well-being—the ability of the farm operator to discharge debt, and so on.

Everywhere, "small business" is the problem that commercial agriculture is faced with. There is no area that is free from some aspect of that problem.

There are areas where there are more of the smaller units than others. On the whole the Maritime Provinces have a larger proportion of these small farm units than other parts of Canada. Quebec comes next in the scale, and as you go west into Ontario and the western provinces farms become considerably larger in scale than in the areas to the east.

The farm income in Ontario and through the western provinces is substantially higher than that of the Maritime provinces in particular, and as well of Quebec. The problem is not confined to a particular area, but there is more of it in the east than in the central and western provinces. However, in Manitoba, Saskatchewan and Alberta the small farm is a consideration, particularly in the areas to the north, where settlement is still taking place or has only recently taken place.

I think this is the sort of thing the committee can do an excellent job on, if they get their teeth into it. We in the department can do all kinds of surveys, but the problem will not get the attention that your studies will make of it.

The CHAIRMAN: I take it we can get that statistical data from Mr. Stutt for each province?

Dr. BOOTH: Yes, I think that would be one of Mr. Stutt's functions. As far as we are concerned, any information we have will be made available; our studies in past years will throw some light on the problem. But I think a good deal more can be done. With Mr. Stutt you can sort out these problems and go into them more deeply, and enlist the support of people in the provincial governments and from outside to deal with specific problems. There are a good many people across Canada who are familiar with the problem of the small farm.

Senator GOLDING: Dr. Booth, in your own department have you reached any conclusion as to what would be an economic and efficient unit for farm operations? I am referring to general farming.

Dr. BOOTH: We have been asked that question in various ways on many occasions. It is of interest to people who are coming to this country from Europe and elsewhere to establish themselves on farms. We answer a great many requests for that kind of information, but it is always very difficult to be precise, because we have such tremendously varying conditions across the country. It becomes a question of whose standards are to be used in deciding what is an economic and efficient farm. How much income does the farmer want?

Senator GOLDING: But, for instance, a farm in a fruit district would be quite different from one used for general farming.

Dr. BOOTH: Yes.

Senator GOLDING: Just let us take the unit for general farming operations, the kind that prevails pretty much in the area from which I come. Have you any ideas in that respect?

Dr. BOOTH: I don't think I would care to try to put a label of that kind on it, because there are so many uncertain things that have to be considered.

Senator BARBOUR: And also, prices for farm produce vary from year to year; a farmer's income in one year might support an economic operation, whereas the following year it might not be economic.

Dr. Booth: Quite true.

Senator BRADETTE: Mr. Chairman, this question of the small farm is not a new problem. In my youth we never knew of any government but the municipal government—we never concerned ourselves about the province or the provincial or the federal authority. The situation has now changed, as it should, and the provinces are more active than they once were. In my early days we had only two or three weeks' work on the road by way of contribution from the provincial government. That is entirely different today.

Speaking particularly of northern Ontario, agriculture was more prosperous 25 to 30 years ago than it is at the present time. This is understandable. The

big mining and mill operations in that area have lured the young men from the farms into the industrial centers. That condition applies in most provinces of Canada today, particularly Ontario, Quebec and the Maritimes.

Dr. BOOTH: True, there is a great change taking place in agriculture. The problem you point to is at the very nub of it. It would be an exceedingly interesting and worth while contribution to have a look at the matter and find out what is happening on farms where there is this changing factor—farms that have been consolidated and absorbed into larger units, or have passed out of the picture. Young people are leaving the farms and going into the cities—that is not necessarily a bad thing—but it gives rise to a problem that must be faced.

Senator LEONARD: Mr. Chairman, may I ask Dr. Booth this question? I assume that the problem comprises all or some portion of this 38 per cent with a gross income of less than \$1,200. Does the census branch publish any report based on the breakdown of the figures by areas, or is there any statistical information available to us that would show us where the problem exists by degrees?

Dr. BOOTH: The census will show some of it, and we also have other information which indicates where the small farms are.

Senator LEONARD: Is it published in pamphlet form?

Dr. BOOTH: Yes.

Senator LEONARD: Could we be supplied with it?

Dr. BOOTH: Yes. There is a good deal of information for your use, if you get into it, dig it out and have it made available. It will not be complete, but it will be information that will help you in your study.

Senator BRADETTE: Dr. Booth referred to the question of co-operation between the federal and provincial governments, which is quite an acute situation. About two years ago I asked three or four agriculturists in northern Ontario to make a report to this committee, but I do not think their report ever reached the committee. Why, I do not know. But may I ask Dr. Booth, do you find you have co-operation in your activities with the provincial governments?

Dr. BOOTH: Yes, very good co-operation.

Senator GOLDING: Their representatives appeared here, and I think the provinces co-operated with us.

Dr. BOOTH: There are land use problems associated with the small farms, and the changing pattern of things that develop out of the loss of farms. Speaking from memory, a few years ago I had occasion to examine the acreage of improved and unimproved land, and the changes that had taken place over the past 50 or 60 years. It was quite noticeable that as a result of the abandonment of farms and the general changes that are taking place, a substantial amount of land is reverting from farm use into unused land, or land which gradually goes back into forest, but very slowly, and is not producing on an economic basis at the present time. There are many millions of acres of land particularly, in the provinces east of the Great Lakes, in which this problem is occurring. Land is going out of what might be called its highest productive use and going back into non-production.

This condition arises from a variety of causes, such as loss of soil fertility, erosion etc. Many of these problems, to my thinking, are associated with the small farm operation.

Senator BUCHANAN: Do families still live on these farms that are gradually going out of use, and make their homes on them, or do they abandon them?

Dr. BOOTH: Many are at that stage today—in the process of abandoning them.

The CHAIRMAN: Complete abandonment?

Dr. BOOTH: Abandonment and consolidation, yes. Unfortunately, the census does not provide information on abandoned farms. We have to rely on surveys of the acreage of improved and unimproved land to know what is happening.

Senator BRADETTE: In many areas the abandoned farms on which people are living are located in the so-called suburbs.

Dr. BOOTH: Yes, in many cases.

Senator BARBOUR: Mr. Chairman, I think the committee should direct its attention more to the small farm where there tends to be a comparative slum condition, than to all small farms. Some of the small farms are well managed and are still productive.

Senator McDONALD (*Kings*): I agree it is important that we should stress the economic side of it. Our greatest problem in Nova Scotia today is to change over the uneconomic units into economic units. Perhaps Dr. Booth could give us some suggestions along that line that would be helpful to us. We have been considering whether or not it might be advisable to have smaller committees go to these provinces and try to gather what information they have so as to be in a position to make proper recommendations that would be helpful. Where can we get this information most readily, and how can we get it?

Dr. BOOTH: I am not sure that I can be absolutely specific on that point, but certainly there are a considerable number of people in every province, attached to the Department of Agriculture or to provincial universities, and also federal people who work with the provinces, which have the information which you are seeking, and which I think you need. There are also people concerned with private industry, and with municipal governments, who are keenly interested in the problem. That is one reason why I think Dr. Taggart thought that the approach to the provincial authorities might bring out their interest in the matter, and also bring to your attention people who might be used to provide information in your study.

Senator McDONALD (*Kings*): As you know, we had Dr. Walsh, the Deputy Minister of Agriculture from Nova Scotia before us and the Deputy Minister from New Brunswick, and they presented briefs to us. Now, can we do more by going down there and meeting with these people? Could we get together the people who should get together in order to get the information we are after?

Dr. BOOTH: I think that is something for you to decide. I am sure there are a lot of people who would be available to you, but whether you go to them or they come to you, is a matter for you to decide.

The CHAIRMAN: It was the thinking of the steering committee that we would approach the provinces. As Senator McDonald has said, we have already had a brief from the Department of Agriculture for Nova Scotia. In that case, we have to approach them a little differently than the provinces which have not given us information so far. But we would have particular reference in our applications to the provinces to the small farm problem, economically and otherwise. As Senator McGrand has said, taxation is one of the problems. In that case we could approach the municipalities to give us some information.

Senator GOLDING: We have had representatives from the provinces here, but not on that specific question. I think it would be wise to have information on it.

The CHAIRMAN: And in getting this particular information we would attempt not to leave out other matters.

Dr. BOOTH: That was definitely Dr. Taggart's point of view. In so far as you are asking us for our view, we are not suggesting that the small farm problem is the only problem you should consider. We do think in looking at that problem you will probably be led into land use and the other matters you are concerned with. But there is no suggestion on our part that you should confine yourselves to a consideration of small farms.

Senator BUCHANAN: Is not one of the problems of the department the fact that you have not been able to get out and see how things are actually done on the ground? You depend too much on information you get from other sources; and probably if we proceed along the same line, without a thorough personal investigation, we will be in the same position as you are with respect to information.

Dr. BOOTH: I think there is something to that point of view, although we do have people located throughout Canada and we have access to provincial records.

Senator BUCHANAN: I realize that, but still you don't get all the information you need.

Senator HIGGINS: Mr. Chairman, we have been talking about farms in the commercial sense. I presume by that we mean farms that are going to make money for the people who own them. Let me mention the small farm problem as it applies to the province of Newfoundland.

In western Canada we talk about the quarter section of 160 acres, or the section with 640 acres. In Newfoundland we are not the great land barons that we see in the west.

The province of Newfoundland has a problem all its own. Unfortunately, the fisherman-farmer is disappearing, the man who fished and farmed for his living. His farm was not really a farm in the commercial sense, but he made money out of fishing and he produced on his farm sufficient food to last himself and his family the year round. He had his potatoes, cabbages, turnips and all the commodities that make for health—not like the tinned food that is thrust at a man who is neither farmer nor fisherman.

These people are independent, kindly, and have a natural courtesy, and they have always carried on their business cheerfully because they were never burdened with any municipal taxes; the only taxes they paid were customs levies. There was no such thing as a land tax.

I say all this, because I am sick and tired of hearing about poverty-stricken Newfoundland. That is sheer propaganda, and that propaganda has gone on long enough. It is time it stopped. Such propaganda is carried on by people who have their own purpose to serve.

We heard about the terrible storm that swept St. John's, Newfoundland some time ago. One would have thought that an earthquake had demolished the place. Some people might think me un-Christian because I do not worry. Why should I worry? On the morning after the storm I telephoned my wife and said, "I understand you have had quite a severe storm". She replied, "Well, it is a bit blustery now". The newspapers talked about a gale moving at an incredible rate of 100 miles an hour. If you went on top of the mountain you would find the wind was probably 30 miles an hour. I have experienced these storms and snowfalls and I know they cause inconvenience, but we must not exaggerate. When I was younger the inconvenience was not noticeable except in the matter of walking. In those days we had no plows and we went on the streets and though there were gulches we managed very well. We had our coal stoves, and very comfortable we were indeed. Nowadays people have all the conveniences of modern life—electric stoves, furnaces and so on. The inconvenience that resulted from the storm would have been caused not by anything like a catastrophe but by loss of electricity.

Let me assure the people who talk about poverty-stricken Newfoundland that we had very nice, clean, comfortable houses. The people usually used the kitchen as a dining room, but the kitchen was quite large, with a settee and very good chairs, and one could always see the Connecticut clock which dealers in antiques try to get now as valuable specimens. These clocks are going just as they went 80 years ago.

These people did not receive a university education but they were well educated, somehow. They had good schools and they spoke well, grammatically and with facility, and they could speak, no matter what the company was, without embarrassment. They could take part in any conversation.

I know all the small places around St. John's which are almost entirely Irish. That is natural because three-quarters of Newfoundland, for 150 years, was Irish. In one section of the province there is a population of probably 15,000 or 20,000, mostly Irish, and down the east end of St. John's you will find a great many people by the name of Higgins. Higgins will always be returned from East St. John's whenever one runs. One of my cousins was member for St. John's East. Unfortunately—or fortunately—these people have the Irish proclivity to travel.

Senator BRADETTE: Fortunately or unfortunately?

Senator HIGGINS: Well, it depends on the point of view. These people want to see something of the world. A great many of them have gone to the United States and you will find at the present day in Brooklyn, Boston and New York thousands of Newfoundlanders. Their departure was our loss. To the north we have the descendants of English settlers from Somerset and Devon—people who still have the English accent in the Elizabethan manner. On the west coast we have good farmland, and when you speak of farming, I suggest that unless we look at this whole subject philosophically we shall get nowhere. These people like to fish and they like to operate 10 or 12 acres of land, and if the people in the west are to be shown how to run their farms properly these people should be given similar assistance. They should be told how best to get the maximum of food out of their land. It is all very well to tell people how to make money but these people who have these small holdings should be helped to make the most out of them that they can. To suggest that a man's farm is too small is, I submit, simply destructive talk.

The CHAIRMAN: That is not the intention, senator, to say that any farm is too small.

Senator HIGGINS: They can still fish and live on their farms; but to tell them that their farm is no good because they cannot make money is nonsense.

The CHAIRMAN: It is like the question of outside employment.

Senator HIGGINS: The unfortunate part of it is that during the war we had a good many American bases. They paid good wages. Young men went there to work from the farms and made a good living and many of them were thrifty. If these bases closed up I do not know how we could get these people back to the farms and to fishing. These two problems would have to go together: there must be a correlation between the farming and the fishing.

When you talk about Newfoundland in connection with land use you must talk about fishing as well. That is our problem and you should understand it. The province of Nova Scotia has the same problem, the problem of the fisherman-farmer.

Senator SMITH (*Kamloops*): Before we adjourn, I wonder if I might make a suggestion on the basis of something that Dr. Booth mentioned in the early part of his presentation. I think that if we have learned anything in the course

of the many meetings we have had on land use it is that the problem is a most complex one. It is a problem in which there are so many standards of measurement to be applied that we can easily get off the track and waste much time and effort by talking around the subject when we might concentrate on the problem itself.

It appears to me from Dr. Booth's remarks that one standard of measurement they use in their studies is the measurement of capital necessary in the various kinds of farming or land use.

I wonder if it would help us to get something concrete. I wonder if Dr. Booth or the department could put before the committee as a basis for study a classification of land use or farming based on the necessary capital. I am thinking of our problems. I am not familiar with the problems of the small farm in the Maritimes but I do know about the west and one considerable change that has taken place there, as we realize, is the necessity for increased capital in equipment, which has made it necessary to abandon the small quarter section and half section on the Prairies and get into a unit which is a section or more to make it economic on the basis of the tremendous increase in the capital necessary for equipment.

Dr. Booth, have you a classification of farming operations based on the necessary capital, which would give us a basis of approach from that angle?

Dr. BOOTH: I do not know whether we have exactly what you call a classification that we can hand out, but we have made quite a number of studies over the years of different types of farming in various parts of Canada and we always get the capital structure on these farms. We get the investment in equipment, livestock, and so on. Then in our analyses of these results we divide the farms into different groups, to see what the capital structure is, and relate the income and efficiency of operation to capital investment. We have a good deal of information on sizes of farms in terms of capital structure and that information we would be glad to make available to the committee. We use this information from time to time when people make inquiries with a view to going in for farming. The answer is, yes; we can supply quite a bit of information but we have no uniform classification for all Canada as far as capital structure is concerned.

The CHAIRMAN: It would depend upon the different kinds of agricultural products produced.

Dr. BOOTH: Yes; it varies tremendously. In some areas, \$20,000 might be near the average, whereas in parts of Ontario and further west you get into sums ranging from \$50,000 to \$100,000 in the way of capital investment. The most notable thing today is the emphasis on forms of capital other than land. Capital investment in livestock and equipment has increased tremendously, and that is one of the problems the farmers face. Short-term financing has increased to such an extent that it imposes a burden to agriculture, quite different from years ago when a mortgage running for from 20 to 30 years was the measure of indebtedness. Today, there are many more loans that have to be paid off in two to three years in some cases and in eight to ten years in any case. You have therefore a capital problem which is of considerable significance to agriculture. Of course, the small farmer is the man who finds it difficult to meet the changes because of his inability to mobilize capital resources required for expansion.

Senator TAYLOR (Westmorland): I have listened to the discussions, and coming to the specific problem which we have agreed we should tackle, the small farm unit, I think it is a fact of which we are all perfectly aware that there is definitely a problem. We know it exists, because in my own province

you can pick up the *Royal Gazette* every week and see small properties put up for sale or sold by the sheriff for taxes. That takes place every week of the year in certain areas. We know that this problem exists.

Now, it is not up to the committee to say what shall be the economic farm unit. We are not competent to do that because the conditions vary in the different localities, so that it is a local problem that must be determined there.

The suggestion was made the other day that we should try to get from the provinces their views in relation to this small-farm unit problem. The suggestion is that we should get from the farm organizations and probably the municipalities their views on this subject. It was suggested that they present their views along that line to this committee.

It may be necessary for subcommittees of this committee to see some of these areas, to interview people, and to find out whether their recommendations are sound and what adjustments may be necessary. That is the problem that faces us.

There are problems with respect to extension which this committee should not become involved in. The matter of saying what shall be produced in this area or locality and what should be produced in that is not for this committee to say. Soil conditions vary and a committee of this sort is not in a position to make proposals in that direction. It is the responsibility of the local levels of government and the farm organizations to consider the subject from the point of view of suitability of any particular area or location, the suitability of soil for production of certain commodities, and so on.

As a matter of fact, in my opinion, there are certain types of farm practices that may involve certain acreage or production problems that might not apply to some other areas.

Changes in farming operations due to mechanization, and to other causes, take place rapidly and the situation is still changing, and one of the great problems in my province is attributable to the shortness of the crop season. The time we have to get the crop in lasts for not more than four or five weeks and if you get three rainy weeks you do not get your crop, and that is the factor that has turned our farmers more and more to mechanization.

The result is that when they have to replace a tractor, which they bought some years ago for \$800, they have now to pay three or four thousand dollars for a comparable machine, so that they cannot buy the machinery they need. These problems undoubtedly exist and we should endeavour to find out what we can do to place before the Government some recommendation aimed at overcoming some of them.

Before we do that we have to learn the thinking of the local people in the various areas across Canada. That, I think, is the first step and if necessary you should call some of these people in. In some provinces the farm organizations have not presented their views to the committee and they should be heard. That is a step which should be taken.

The CHAIRMAN: That was the understanding of the Steering Committee yesterday, that we might take that up and get in touch with the different provinces, the different farm organizations, and obtain the necessary information. Then we can sift this information and try to find out what problem areas there are, what problems they are confronted with, and then pick out three or four problem areas and go with small delegations later in the season to study the situation.

Senator TAYLOR (*Westmorland*): When that is done, there are other aspects of the farm problem which should be considered. We have all across Canada land-use problems, water conservation, water control, and all that sort

of thing; and when these subcommittees do visit the provinces they can see what has been done, how successful it is, and so on. It is important to meet with the farm organizations, to meet with the farmers.

I know something about our Department in New Brunswick, for I was minister for 17 years and I know what they have been trying to do. They are in a position to give us information and we should correlate our information with the data we obtain from the provincial bodies. One thing we must do is to get the confidence of the farm people themselves in this committee so that there can be complete co-operation when we meet them.

Senator McGRAND: Is it possible to go to the Bureau of Statistics and get information dealing with this question of farm values when the census is taken, or to get it in some other way? The question of taxation is very important. A few years ago in the case of a small farm in New Brunswick which did not produce very much money the tax was probably \$50 a year, but owing to the increase in educational facilities and the problem of collecting taxes from the landowner these farms today have a tax of \$300 or \$400 a year to meet, and it is too much for the farm to stand.

Senator GOLDING: What size farm?

Senator McGRAND: A farm of 250 acres—wood lot farms. When you talk about agriculture in New Brunswick, you cannot separate farming from the wood lot. There the result was that many of these people cut their woodlot, sold their spruce and fir pulpwood, and then got off the land because they could not stand the taxation. Is it possible to get from the Bureau of Statistics any information dealing with this particular problem?

Senator BRADETTE: Did you say \$300 or \$400 on a small farm? We do not pay that in Ontario.

Senator McGRAND: Senator Taylor can give us an idea of what taxation means to rural New Brunswick. There are many farmers whose income is very small and they tell me their taxes average a \$1 a day—municipal taxes.

Senator GOLDING: That takes education into account.

Senator McGRAND: Education comes into that. I think taxation on New Brunswick farms more than doubled through the expansion of the high school system in New Brunswick, and the same is true of Nova Scotia.

The CHAIRMAN: In our discussion that will come out; that will be considered in the discussion of the small farm unit. I think we should have a motion now.

Senator TAYLOR: I am prepared to make a motion.

The CHAIRMAN: The motion is that we get in touch with the provinces and the provincial farm organizations.

Senator GOLDING: I would second the motion.

Senator BARBOUR: Do you include the farm forums?

The CHAIRMAN: Yes.

Senator TAYLOR: Is not the farm forum tied in closely with the Federation?

The CHAIRMAN: I have had individual letters from different points of the country already as to what they can do in the way of helping, but just how we can deal with individuals I do not know. I suggest that we deal through the farm organization and they can contact the farm organization and work that that way.

Senator GOLDING: That would be a start.

The CHAIRMAN: That is what we should do first. While we are waiting for reports from the provinces we should keep busy on this matter. We can get reports from Quebec and Ontario and we might get some of the farm organizations to give us a brief. We do not want to particularize down to the small-farm unit entirely.

Senator BOIS: We are talking about production and so on and ways in which we can help the farmers to produce food, but there is the other end of the problem to be considered. There is the question of selling price, and without claiming that prices are too low or stating that they are too high, there is one thing that does exist, and that is the differential between what the farmer receives and what the produce is sold for. Despite all that is written on the subject, it is a fact that the income of the farmer has not increased in the same proportion as price has gone up. There is a contradiction in that way. My idea in calling these people was to show by example that there is as much money in processing the hog as in breeding and feeding it. We have proof, and it is things of this kind that I would like the committee to have a chance to consider. There is another point. These same organizations can do a great deal to facilitate the dissemination of information, and that applies to 40,000 farmers.

The CHAIRMAN: We can do that, senator. We can get in touch with them.

Senator BOIS: We were talking about taxes and their incidence on the income of the farmer. That is another matter in connection with which I would contact the rural municipalities' associations. They could give us information in that regard.

The CHAIRMAN: Each province has a rural association. Is it the pleasure of the committee to adopt the motion that we get in touch with the provinces, the farm organizations?

The motion was agreed to.

Senator TAYLOR: I suggest that in the material that you might make available to the committee we would need to have some study of the problem of the small farm.

The CHAIRMAN: Dr. Booth and Mr. Stutt are in the same department and they can work that out. Mr. Stutt can get much information from Dr. Booth pertaining to the small farm units. They will search the records and if there is something of interest we shall be glad to have it from the department. In the meantime, Dr. Booth, I wish to thank you for your assistance.

Senator TAYLOR (*Westmorland*): I move a vote of thanks to Dr. Booth and Mr. Stutt.

Senator INMAN: I second the motion.

The motion was agreed to.

The committee then adjourned.

Canada. Land Use in Canada Special Committee on (Land Use).
2nd Session, 24th Parliament, 1959

THE SENATE OF CANADA



PROCEEDINGS
OF THE
SPECIAL COMMITTEE OF THE SENATE
ON
LAND USE IN CANADA

No. 2

THURSDAY, MARCH 12, 1959

The Honourable Arthur M. Pearson, Chairman

WITNESSES

All from the Department of Agriculture: Dr. J. G. Taggart, Deputy Minister, Dr. J. F. Booth, Director, Economics Division, Dr. M. E. Andal, Chief Production, Economic Section, Economic Division.

APPENDIX A

Tables No. 1 to 10 showing Land Occupancy, Area of Farms, Livestock Numbers, Changes in Acreage etc., for several selected regions of Canada.

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Power
Basha	Horner	Smith (<i>Kamloops</i>)
Bois	Inman	Stambaugh
Boucher	Leger	Taylor (<i>Norfolk</i>)
Bradette	Leonard	Taylor (<i>Wesmorland</i>)
Buchanan	MacDonald	Turgeon
Cameron	McDonald	Vaillancourt
Crerar	McGrand	Wall
Emerson	Methot	White—31.
Gladstone	Molson	
Golding	Pearson	

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—

Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

THURSDAY, March 12th, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 10.30 a.m.

Present: The Honourable Senators:— Pearson, Chairman; Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Gladstone, Golding, Higgins, Horner, Inman, Leonard, MacDonald, McDonald, McGrand, Smith (*Kamloops*), Stambaugh, Turgeon and Wall. 21.

In attendance: Mr. Ralph A. Stutt, Committee Consultant, and the Official Reporters of the Senate.

The Committee proceeded to the further consideration of the order of reference of Tuesday, February 17, 1959.

The following witnesses from the Department of Agriculture were heard and questioned:—

Dr. J. G. Taggart, Deputy Minister; Dr. J. F. Booth, Director, Economics Division; and Dr. M. E. Andal, Chief Production, Economic Section, Economic Division.

Dr. Andal tabled several documents and they were ordered printed as Appendix A to today's proceedings.

At 12:30 p.m. the Committee adjourned to the call of the Chairman; tentatively Thursday, March 19, 1959, at 10.30 a.m.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, Thursday, March 12, 1959

The Special Committee on land use in Canada met this day at 10.30 a.m. Senator ARTHUR M. PEARSON in the Chair.

The CHAIRMAN: Honourable senators, it is now 10.30 and we have a quorum.

Senator HIGGINS: Mr. Chairman, before we proceed, if you do not mind I would like to say there are a couple of corrections I would like to make in the printed Proceedings of our last meeting. On page 15 it says:

If you went on top of the mountain you would find the wind was probably 30 miles an hour.

It should read:

If you went on top of the mountain you would find the wind blowing in gusts of 100 miles per hour but it would probably be 30 miles an hour at St. John's.

On page 16 of the Proceedings I am reported to have said:

Down the east end of St. John's you will find a great many people by the name of Higgins,

There are also a couple of other corrections to be made in this paragraph which should read:

The fact is that there are only three families bearing the name Higgins. There are some places in St. John's and around St. John's which are almost entirely Irish. This is natural because three-quarters of St. John's and vicinity for 150 years was Irish. In one section, called the Southern Shore, to the west of St. John's there is a population of 15,000 to 20,000, mostly of Irish descent, and down at the east of St. John's you will also find a great many people of Irish descent, and a Higgins has always represented that district, at least for 50 years, and one will always be returned if he runs. I represented it myself and one of my cousins is presently the member for St. John's East. I am speaking of provincial elections. Unfortunately—or fortunately—these people have the Irish proclivity to travel.

I am also reported to have said that:

The unfortunate part of it is that during the war we had a good many American bases.

Well, the fact is that it was fortunate. I meant to say that the unfortunate prospect is that the bases might close up.

The CHAIRMAN: Dr. Taggart, Deputy Minister of Agriculture, is with us, and also Dr. Andal, Chief of the Economic Section of the Department of Agriculture. I think we will call on Dr. Taggart first; he has another meeting to attend. I believe you want to give us a little story on this land use as it refers to the small farm, is that not right, Doctor?

Dr. J. G. Taggart, Deputy Minister of Agriculture:

Mr. Chairman, Honourable Senators: First, I wish to apologize for having failed to turn up at your meeting on February 26. However, I am glad to have the opportunity of appearing now, even though I may not have a great

deal to contribute to your deliberations. I wish to say, however, that in discussing your study with my minister he regards this study as being very important, and I am sure that we the officials of his department regard it in the same light. The reasons for that, I think, are not hard to find, but perhaps would bear re-statement in order that the ultimate use of your findings may be foreseen.

First of all, we have all heard statements made about the population of agriculture being say 18 per cent of the total, while the farm population received say 8 per cent or 9 per cent of the national income. We have heard, too, and I think this is verifiable from the record, that 40 per cent of the farmers receive 75 per cent or 80 per cent of the income derived from the sale of farm products. We have heard, too, in fact I think my minister made this statement quite recently, and again this is based upon the census returns, that 38 per cent of the farmers in Canada receive incomes in cash from the sale of farm products of \$1,200 a year or less.

Now, these various statements, and many others which could be quoted, I think clearly indicate the need for a careful study of the so-called farm or small farm sector of the farm population, and of the farming business. If it is true that 40 per cent of the farmers actually do receive 75 per cent or 80 per cent of the income derived from the sale of farm products, then probably if we are to make comparisons between farm people and other occupations the comparison should be between that 40 per cent and the balance of the population of the country, rather than between the total farm population and the other people in the country; and the comparison in that case might be quite different. Secondly, if it is true that 38 per cent of the farm population as listed in the census received cash incomes of \$1,200 or less per family, that surely would suggest to us that attention ought to be focused on that segment of the farm population if we are to develop public policies that are intended to and that actually will ameliorate the conditions of those people. Not only should the attention be focused upon that particular group as a group, but it would seem to me even more important to attempt to analyse the group itself to find out, first of all, if it is true that the income figures which we commonly quote are actually correct and complete and that these people have no other sources of income. Secondly having found out what the incomes actually are we ought to try to find out why people who are so situated do receive such small incomes.

Then, of course, you will wish to go on, I am sure, farther and try to determine whether a sounder and wiser use of the land resources under the command of these people could be devised which would enable them to earn more satisfactory incomes. It seems to me it is at that point that the land use aspect comes into focus.

Senator McDONALD: Mr. Chairman, before Dr. Taggart leaves that, may I ask him if he could not use a more appropriate term than "small farm". That is, would it not be more proper to say that we are trying to discover if possible the remedy for some of the problems of the low-income groups, that is, speaking of it from an economic standpoint rather than the small farm, because, as you realize, a small farmer in the West in the matter of acreage would be considered a large farmer in our language in the East.

Dr. TAGGART: Mr. Chairman and Senator McDonald it is that point I was about to develop and as you have already done so I need not expand on it. I was going to point out that instead of using the term "small farmer" and implying that the small farm was small in acreage only, that perhaps attention ought to be centred on the income, as Dr. Booth suggested at the last meeting. Another criterion is the capital invested in the farm. A man in many cases may have a large capital invested in a highly productive farm of only 10 acres.

Senator GOLDING: Don't you think that we now should have some definition of what we are trying to examine?

Dr. TAGGART: I agree. That is the point I am trying to make. If we examine the situation I think we will have to then try to define in more precise terms what exactly we mean when we talk about the small farm particularly speaking. We have used that term loosely in speaking of that group of farmers who have small incomes without analysing the reason for the small income or going more fully into other aspects of the situation such as the one I implied when I mentioned other outside income. For example, in the report of the McPhee royal commission on the Tree Fruit Industry in British Columbia, it was disclosed that the average size of orchard is declining, that is to say the larger orchard in many cases are being subdivided into orchards of two and three acres. They then become a home for the operator. But they may still be listed as farms. In the same report it is disclosed that in many cases the income of the operator is greater from sources outside of the farm than from the farm itself, and that taking the group as a whole I think the report told us that the people derived 25 per cent or more of their total income from occupations outside of the farm itself. So it is that type of study that must be made to find out whether or not the low income farm is a low income farm because of the nature of the soil and the kind of agriculture that is carried out or whether it is some other aspect of the economy altogether.

Senator GOLDING: There is another point too that we should decide on if we are going to examine into what is considered a *bona fide* farmer. Does the census information not point out what is a *bona fide* farmer?

Dr. TAGGART: Perhaps Dr. Andral could answer that question, Mr. Chairman.

Dr. ANDRAL: In the sense that they define a farm as being any holding on which agricultural operations are carried on on an area that is over three acres; or if it is between one and three acres in area it requires \$250 value of Agricultural production.

Senator GOLDING: Dr. Taggart that is, if it is three acres it is a farm?

Dr. ANDRAL: That is right, if it has any agricultural operations being carried on.

Dr. TAGGART: And if it is between one and three acres in order to be a farm it must have produced \$250 in value of agricultural products.

Dr. ANDRAL: Yes.

Dr. TAGGART: Mr. Chairman, I would suggest that you get into pretty small enterprises indeed with a definition of that sort.

Senator GOLDING: In any event, we want to know what we are examining.

Dr. TAGGART: My point in raising these questions is not to try to answer them, because I do not feel that I am capable of doing so, but I do believe that the study upon which you are launching will produce evidence upon which you can define more precisely what we mean by a small farm or a low income farm, and thereby lay the foundation for public policy with respect to a clearly defined situation, instead of basing it upon, or having the danger of it being based upon, an indefinite and vague situation.

Senator GOLDING: The only point I had in mind was, very often this group of people may be listed as farmers, but their cash income when it is averaged, largely comes from other sources, and we do not get a true picture.

Senator McDONALD: Would it not seem perhaps fairer if farms were classified as properties on which the owner gained most of his income? I cannot consider a small acreage of two, three or as much as five or ten acres, a farm, unless the owner or proprietor is getting the greater part of his income from it.

Senator CAMERON: Mr. Chairman, if you changed that classification, you would have to find some other means of classifying him, otherwise the agricultural statistics would become completely distorted.

Senator McDONALD: Yes, but I do not like to see people classified as farmers who are not such in the proper sense of the term. As Senator Golding pointed out, these people are not truly farmers; in many cases they work in nearby towns or cities, where they gain the greater part of their living, and the farm operation is a sideline.

The CHAIRMAN: Senator McDonald, I think Dr. Taggart suggested that one of the things this committee has to do is decide what is a small farmer, economically or otherwise.

Senator McDONALD: I raise the point, Mr. Chairman—and I think it was in Senator Golding's mind—that we can get some help from these capable officials as to what their idea may be with respect to it.

Senator STAMBAUGH: Mr. Chairman, I would like to ask Dr. Taggart what is considered a farm under the Prairie Farm Assistance Act.

Dr. TAGGART: The definition there is of a farmer. I cannot quote it from memory, but it is to the effect that he must live on and operate a farm from May 1 to November 1 or whatever is considered the crop season. There is no definition as to acreage.

Senator STAMBAUGH: Is there not a definition as to what part of his income must be acquired from the farm operation?

Dr. TAGGART: There was provision in the old act, as to the man who had another occupation, such as an elevator agent or something like that; he could not qualify for payment under the P.F.A.A. He might operate a large farm, and receive considerable income from it, but if he had another occupation he was not considered a farmer under the P.F.A.A. However, under the last amendment to the act that has been changed, and the man who does not live on a farm but who operates it may qualify for payment.

Senator STAMBAUGH: It does not actually say what is a farm?

Dr. TAGGART: No.

Now, Mr. Chairman, if I may proceed one step further with my presentation, I wish to follow up what I said about the importance which our minister and department attach to this question.

The minister also asked me to see to it that the Department gave to your committee all the help we could in bringing forth facts and evidence and statistics and anything that we have that may be worth listening to in order to facilitate your work. Our main purpose is two-fold: first, to tell you that we regard the study as being very important; second, that we stand ready to help in any way we can within our knowledge. In addition to the men who are here today, if you wish at any time to call them we have men who are expert in soil classification, soil management, the technical aspects of the problem which at some stage you undoubtedly wish to bring into your study. In that connection may I again stress the point which several honourable senators have made, namely, that in order to know what we are doing it is necessary to take this small farm problem apart and see what it is made of, and see what part of it is really a land use problem and what part of it is not a problem at all. Because I am sure you will all agree that there are many people living on farms who are deriving incomes from other sources, who are living very happily and would not want to be regarded as a problem at all; in fact they would be insulted if you so regarded them; and there is no reason why any Government policy should be directed towards ameliorating the conditions of those who are so happily situated on a farm, deriving an income from any other source. But where farmers are situated on poor, unproductive soil, on rock

and swamp, to enable them to make a living is, it seems to me, a problem which Governments, federal and provincial together probably ought to tackle from the land use point of view, to see whether or not the productivity of these units can be developed to the point where a family can make a satisfactory living.

With that bit of background I submit that, as far as our department is concerned, you would make the best of use of us if you were to call Dr. Andal and others who have contributions to make. Are there any questions?

Senator McDONALD: May I ask Dr. Taggart if he or his other officials will tell us just what investigations and inquiries and studies at the present time are being made in the provinces from which informaton may be obtained which would be helpful to this committee.

Dr. TAGGART: I think, for example, of studies, such as Dr. Booth's farm management survey studies, which are conducted either by our Agricultural Economics Division or jointly with the provinces, who study in detail the operations of groups of farms, with hundreds of farms in a group; and in these studies you will find that there are small and large farms which are well managed, and fairly well-managed farms; there are farms which produce much above the average and others which produce much below the average. There are herds of dairy cattle producing 4,000 pounds of milk per cow, and others in the same area producing 8,000 pounds of milk per cow. I am sure that an examination of these surveys will throw a great deal of light on this very problem.

Senator McDONALD: You are starting surveys this year, are you not? There is one, for instance, going to be done in Prince Edward Island. That is the kind of information I am after,—to try to see if you are now getting information that would save this committee some inquiries. We do not want to duplicate the work you are doing.

Dr. TAGGART: I cannot give you details about that, although Dr. Booth, who is here, can. I know we have offered with both Nova Scotia and Prince Edward Island to undertake jointly what they call a social-economic study of agriculture in those provinces. I think the basic reason for the request for this study by the provinces is much the same as the basic reason you are undertaking your study, namely, to find out what trends have developed and what changes have taken place in agriculture, what problems have been created and what solutions may be applied. Those studies may take quite a little while to complete and I would doubt the wisdom of suspending your studies pending what they are doing. It may well be that when your studies have reached a certain stage you will find that the kind of information those other studies are designed to obtain will be essential to the body of evidence upon which you wish to base conclusions. However, I do not think there would be any conflict in the two lines of effort.

Senator McDONALD: Is there any other study besides those being entertained by Nova Scotia and Prince Edward Island that will be going on this year?

Dr. TAGGART: Similar surveys, although perhaps not so comprehensive, have been made in other provinces. Quite a number of farm management surveys of farm operations have been made in the Prairie provinces. In the case of Prince Edward Island I think the attempt is to look at the whole situation on the Island.

Senator BARBOUR: That will be made this summer, will it not?

Dr. TAGGART: Yes, I believe the studies are just now being organized.

Senator BARBOUR: The Minister of Agriculture in Prince Edward Island made a statement in the Legislature that your economists had agreed to make a survey this year providing they were assisted by representatives from the island.

Dr. TAGGART: Yes.

Senator BARBOUR: That would be along the same lines as we are going here.

Dr. TAGGART: If it is agreeable to the committee I would suggest that Dr. Booth could give a more detailed description of what we are attempting to do.

Senator BUCHANAN: Don't you think this committee should work pretty much along the same lines as these other inquiries? We are dealing with this whole matter in a general way and we get very much confused comparing one area with another where conditions are entirely different. Should we not deal in smaller areas too rather than just the problem as a whole?

Dr. TAGGART: There is no doubt that you must break down your problems sufficiently to see the difference between the various localities.

Senator BUCHANAN: That is what I mean.

Dr. TAGGART: That is highly important. However, the evidence accumulated at Prince Edward Island would not only reveal the facts of their situation but in all probability would suggest lines of study for even tentative conclusions with respect to other similar areas. Therefore, the evidence they accumulate could likely have a value beyond the immediate locale.

Senator CAMERON: Dr. Taggart, that is very true in the tree fruit study because many of the principles involved there apply to the small low-income farms right across Canada. It is a very significant study in that respect.

Dr. TAGGART: Yes. One aspect of the so-called, small farm problem which does need careful examination is the income derived from other sources. It is quite obvious, surely, that no farm family in these days can live on an income of \$250 or \$350 a year.

Senator McDONALD: Those people would not want to be called farmers.

Dr. TAGGART: No.

Senator HIGGINS: We have been talking about the Prairie provinces and the Maritime provinces. There is one province I would like to know about, and that is Quebec. Travelling through that province by train I have observed a large number of fenced-off divisions of land, some of which have appeared to consist of not more than 15 or 20 acres. If one of these divisions constituted a single farm would the farmer be able to make a living off it?

Senator BRADETTE: By specialized farming.

Senator HIGGINS: On just 20 acres?

Senator BRADETTE: Oh, yes.

Dr. TAGGART: When Dr. Andal gives evidence I think you will find reference in his brief to capital investment with respect to farms in different areas and in different provinces.

Senator HIGGINS: I noticed that these divisions of land had good strong fences around them, and I assumed the farmers were not making a living off that land alone.

Dr. TAGGART: That is entirely true in the areas in Quebec province where the farms are small. Those people undoubtedly derive substantial income from other sources.

Senator HIGGINS: Such as lumbering?

Dr. TAGGART: Lumbering, fishing, construction work and various activities of that kind. It seems that in the eastern part of Quebec where specialized crops are not very well adapted they have no other possible means of income beyond the production of grass, hay and milk, which is typical of the good farming areas of Quebec. It is obvious that that type of area cannot sustain a family.

Senator HIGGINS: At our last meeting I made reference to the fisherman-farmer of Newfoundland. This man makes his living from fishing but he gets his food from his small farm. Sometimes he may sell a barrel of potatoes or something like that. His farm would consist of only seven or eight acres but he would get enough food from it to provide for his family for a year.

Dr. TAGGART: You may have to develop some new definitions, Mr. Chairman.

The CHAIRMAN: Honourable senators, I want to thank Dr. Taggart very much for coming over here and giving us his time. I know he is a very busy man and I think we should show him our appreciation.

Hon. SENATORS: Hear, hear.

The CHAIRMAN: We also have with us this morning Dr. J. F. Booth, Director, Economics Division, Department of Agriculture. I think Dr. Booth has a short brief to present to us.

Dr. J. F. BOOTH (*Director, Economics Division, Department of Agriculture*): Mr. Chairman and honourable senators, I have no particular observations to make today but I would like to introduce my colleague, Dr. Andal, who has a brief to present.

Perhaps I might comment on a question raised by Senator McDonald, I think it was, with respect to the program in the Maritime provinces. We have an understanding with the province of Prince Edward Island, which resulted from an exchange of correspondence and a meeting with departmental officials here a few weeks ago, that we will undertake a project this year on the Island, covering a representative group of farms in three areas on the island. The study will primarily deal with social and economic changes that have taken place in the province. With respect to Nova Scotia, we have had discussions with their provincial officials but the arrangements have not yet been completed. We are not quite sure what will develop there yet.

In addition to these studies we have a number of other studies across the country which all have a bearing upon the subject matter that you would be considering.

Some of them deal with changes in farm organization in different provinces. This is one study that we carry on across the whole country, and it has been going on for some years, and we will continue it, to keep abreast of the changes taking place in farming in very general terms.

There are also specific studies such as that of the beef cattle enterprise in Ontario; studies of ranching; and certain studies may be done of cost of production of agricultural products. We have completed certain work in that field in the past year at the request of the Agricultural Stabilization Board, and we are still awaiting instructions this year on that field of work. It is possible there will be some further work this year in connection with the cost of producing farm products, and of course a study made of that; also touching on many other aspects included in small farm projects. Those are some of the projects. Dr. Andal, however, is in charge of the section under which this work is conducted, and he may wish to say something further on this point.

The CHAIRMAN: Thank you very much. Dr. Andal, are you ready now?

Senator McDONALD: Mr. Chairman, I wonder if it would be asking too much of Dr. Booth to have a list of the studies that have been made prepared, and if possible to give members of the committee copies of the reports of those studies and investigations and surveys that have been completed, and then a list of the projects that are to be started this year?

Dr. BOOTH: Yes, that could be done, Mr. Chairman. The list is very large, and it would take you back over a period of years.

Senator McDONALD: But I think you would know what would be helpful to members of this committee.

Dr. BOOTH: We will do that.

Senator McDONALD: If we could get such a list and get copies of these reports, I think it would be something invaluable to the members of this committee on this study.

Dr. BOOTH: We will do that, Mr. Chairman; we shall be very glad to do it indeed. Some of the studies have not resulted in published reports, senator, some of them are done for purposes of departmental administration and for general information useful to officials concerned in such matters, but most of our studies have been published.

Senator BRADETTE: What would be the time limit? Would the reports go back to 30 or 40 years, for instance?

Dr. BOOTH: That would be up to the committee, Senator. Our work goes back to 1929, and we have completed some scores of studies in that period.

Senator McDONALD: I think we could leave that to the judgment of the officials as to what reports would be helpful.

Senator BRADETTE: Yes.

The CHAIRMAN: I think that is a very good suggestion, Senator McDonald.

Senator BARBOUR: Mr. Chairman, this is a Land Use Committee. We have experimental farms in all the provinces, and I would suggest that we recommend to the farmers in general to make more use of the experimental farms as to what they should do, because they have the men there to tell them. The farmers can get their soil analysed, and ascertain what is the best fertilizer to use, and what crops are most profitable to grow. I do not believe our farmers are making use of the experimental farms to the extent they should.

The CHAIRMAN: Quite right.

Senator CAMERON: Mr. Chairman, in introducing a new witness, it would be useful to the committee to have an account of his background and qualifications, for the record.

DR. M. E. ANDAL, ECONOMICS DIVISION, DEPARTMENT OF AGRICULTURE:

Thank you, Mr. Chairman.

Honourable senators, it is a pleasure to appear here before you.

As to my background, I was brought up on a farm in northeastern Saskatchewan, attended the University of Saskatchewan, and Michigan State University, and joined the Department of Agriculture about 15 years ago; I was located at the regional office in Saskatoon, and came to headquarters in 1952, and have been here since.

When Dr. Booth was here two weeks ago he indicated that there was a good deal of information on small farms. He also indicated that it would be possible to provide information on a number of questions that were raised at that time. I will attempt to present some of this to you.

It may be helpful, first of all, to give some indication of the extent of small farms in Canada and where they are located. The question was raised earlier this morning as to what is a small farm. It is very difficult to give a definition that is satisfactory to everyone. Generally, what is meant by a small farm is a farm which is too small to provide the operator and his family with what is considered to be an acceptable level of living. Figures are not available to show what the net income is of each farm in the country, so that other measures of farm size are used for this purpose. These measures include the value of sales of farm products, the value of farm production, the capital investment in farms, and sometimes the size of farms in terms of acres. The difference between value of sales and value of production is that farm products which are produced and consumed in the home are included in the value of production but not included in the value of sales.

Now, on the sales of farm products, the 1951 census provides the latest information on this matter, and this census indicated that 10 per cent of the farms in the country were part-time farms; 14 per cent had sales of farm products below \$250; 38 per cent had a value of sales of between \$250 and \$2,500. Part-time farms were more frequent in the Maritime provinces, especially in Nova Scotia and New Brunswick. Part-time farms accounted for 21 per cent of all farms in the Maritime provinces; 12 per cent in the central provinces—Ontario and Quebec; 5 per cent in the Prairie provinces; and 17 per cent in British Columbia.

On the value of production, there is more recent information; the 1956 census covered this. The 1956 census showed that about 21 per cent of farms in Canada produced farm products less than \$1,200.

The CHAIRMAN: Does that include those which are part-time farms?

Dr. ANDAL: Yes.

The CHAIRMAN: 21 per cent includes those which are part-time farms?

Dr. ANDAL: Yes, it does. Two weeks ago, Senator Leonard asked whether there was a breakdown of these figures for different areas. Dr. Booth indicated there was, and I have some of the figures here. 55 per cent of the farms in the Maritimes produced what was estimated to be less than \$1,200 worth of farm products; in Quebec the figure was 28 per cent; in Ontario, 19 per cent. In the Prairie provinces it was 8 per cent. In British Columbia, 46 per cent of the farms produced less than \$1,200.

Senator HORNER: What percentage in British Columbia?

Dr. ANDAL: 46 per cent. These figures are available for every county in more detail just where these small farms are located.

Another measure of farm size is real estate investment. This includes investment in land and buildings. Again, the 1951 census of agriculture is the most recent information on this aspect. Twenty-eight per cent of the farms had a real estate investment of less than \$3950; 30 per cent had an investment of between \$3950 and \$7450, while 42 per cent had an investment of more than \$7450. The Maritime provinces had the lowest investment, followed by Quebec, Ontario, British Columbia and the Prairie provinces.

Size of farms in terms of acreage is another measure. As with the other measures the improved acreage is not a completely satisfactory measure of farm size since a small but intensive farm can produce a fairly high income, and large but extensive farms might produce small incomes. However, the 1951 census of agriculture showed that about 37 per cent of all the farms in Canada had less than 70 improved acres.

Senator CAMERON: Would you read that again.

Dr. ANDAL: About 7 per cent of all farms had less than 70 improved acres. Another 24 per cent were in the 70- to 130-acre size group. In the Maritime provinces 80 per cent of all farms have less than 70 improved acres. This ranges from 59 per cent in Prince Edward Island to nearly 100 per cent in Newfoundland. In Quebec the percentage is 52, and in Ontario, 41. In the Prairies 11 per cent of the farms had 70 acres of improved land or less. The farms are much larger on the Prairies in terms of acreage. In British Columbia 85 per cent of the farms were in this category.

Now each of these measures have limitations indicating just how many small farms there are. However, they suggest that perhaps one-third of the farms in the country are in the small farms category. This is a very sizable proportion of all the farms and it represents a large number of people. It should be pointed out however that not all of these small farms are problem farms. For the purpose of the census a holding is called a farm if it has some agricultural operations—it might be a cow—and if it is three acres or more in size. If it is between one and three acres in size it must have value of products amounting to \$250 or more so that these holdings can be very, very small indeed.

Senator STAMBAUGH: That is value of products produced on that holding?

Dr. ANDAL: Yes, to the extent of \$250. Thus, many of the 575,000 farms shown in Canada are really not farms at all when considered in the usual sense.

Senator SMITH (*Kamloops*): What percentage would that be?

Dr. ANDAL: The census shows there are 575,000 farms in Canada but many of them because they are so small are really not farms in the sense that we usually think of farms and they should therefore be eliminated from our thinking as farms.

Senator STAMBAUGH: Have you any percentage figure on that?

Dr. ANDAL: From these different measures I discussed a moment ago it seems that roughly one-third of them are small farms.

Senator MCDONALD: In making up your census forms would it be possible to include a question as to the production from these small farms under some other headings such as production from other than farms or something like that, so that you would not get them mixed up with real farms? It is not fair to the farmers to have a lot of these small productions included as coming from real farms when as a matter of fact they are not.

Dr. ANDAL: There is such a category now and that takes care of the acreages less than three or more than one. Your suggestion is, I think, that this line should be higher than it is at present.

They are required to make a census of agriculture, not a census of farms so that they are required to make a census of these small holdings. I mentioned that about one-third of the farms in Canada were in this small farms category. Many of these, however, are not problem farms. Many of them are places of residence of people who carry on some farming operations but who get a substantial part of their income from off-farm employment. The sale of products from these farms may not amount to a great deal, but this, together with the off-farm income, and the desirable qualities of the location for a home probably makes this a desirable type of life.

Closely related to this group is another which might be called residential farmers. These have full-time jobs in a city or town and raise a few farm products purely as a hobby. In both cases they are people who work in towns and cities and who prefer to live in the country. Other of these small farms are those operated by older people in semi-retirement. Many older people who have farmed all their lives do not wish to move into the city.

They remain living on the farm but do not carry on the same scale of operations that they once did. Also they have no desire to increase the scale of their operation but wish to have a comfortable place to live and a place where they can raise some of the farm products they require as well as to carry on some farm production for sale. Some of the small farms are just beginning their farming career and usually need to start out in a modest scale. There are others on small farms who wish to have a great deal of independence and at the same time are not concerned about getting the latest conveniences and therefore they prefer a small scale operation. There are others who have limited ability and responsibility and find that small farms provide a desirable place and way to make a living.

Although the above suggests that there is a place for some small farms it is hoped that this might be one of the questions your Committee might investigate and determine the extent to which this is so. It is for the balance of the small farms, those which represent full-time or near full-time work and whose operator desire to improve their position, that represent what might be called the small farm problem. It is the problem of these farms which I think should get the major emphasis in a study of small farms.

The number of these very small holdings is indicated by the fact that 14 per cent of these small farms, that is with a value of production in 1955 of less than \$1,200, had a total acreage of less than 10. Twenty-nine per cent of all of these small farms had less than 10 improved acres. 89 per cent of them had less than 70 improved acres.

This is another indication of the size of small holdings.

Senator SMITH (*Kamloops*): Are you still talking about the breakdown of one-third of the total farms?

Dr. ANDAL: Yes.

Senator SMITH (*Kamloops*): You are still referring in these last figures to farms within that one-third?

Dr. ANDAL: That is right.

Senator STAMBAUGH: Do you class farms with 70 cultivated acres as being within that one-third?

The CHAIRMAN: If their income is less than \$1,200.

Dr. ANDAL: Yes. About one-third of the farms in the country contain less than 70 acres. There are also other measures: value of farm products sold and value of farm products produced, which indicate that about one-third of the farms in the country are small. I don't think any of these measures are absolute. You cannot say that a farm with less than 70 improved acres is a small farm, because some farms of that size are large business operations. These are rough measures which indicate the number of small farms in the country.

Senator BUCHANAN: In other words, the two breakdowns don't necessarily coincide?

Dr. ANDAL: That is right.

Senator STAMBAUGH: The point I wanted to establish was whether the farm with 70 cultivated acres was still classified as being within one-third of the total farms.

Senator HORNER: I would not think that is necessarily so.

Dr. ANDAL: One of the classifications, that on acreage, shows that about one-third of the farms had less than 70 improved acres.

Senator WALL: May I ask, is that one-third we are talking about subject to the two measurements, the acreage and the amount of income derived from it?

Dr. ANDAL: They are separate.

The importance of agriculture on the small farms is indicated by the fact that although 21 per cent of the farms in Canada had a value of production of less than \$1,200 these farms had only four per cent of the improved land in the country. They had only three per cent of the cattle, they had only three per cent of the pigs and only four per cent of the hens and chickens. So, this group of small farms represented a small part of the total agriculture, even though the numbers represent a clearly larger proportion of the total number of farms.

Senator McGRAND: Have you any breakdown of that by provinces?

Dr. ANDAL: I think there is a breakdown available, but I do not have the figures with me.

Somewhat over a third of them reported having a car and about a fifth of them reported having a truck and a tractor. Although 21 per cent of all farms were classed as non-commercial on this basis, non-commercial farmers not living on the farm amounted to 26 per cent of the total non-resident farmers. In Quebec 28 per cent of the farms were non-commercial but the non-commercial farmers made up 80 per cent of those farmers not living on the farm. That many of these farms are really residences is indicated by the fact that as large a proportion of these had electric power as did all farms.

The large number of part-time and very small farms is significant in comparing average incomes of all farms (including the large number of very small ones) with average incomes of non-farm groups. The average income of all farms is reduced by the small farms. The small farmers get considerable income from non-farm sources. The amount of this income is not known and it is therefore not included in the income of farmers.

Cash income from the sale of farm products for the Maritime provinces amounted to an average of about \$2,150 per farm for the three years 1955-57. During the same period it was \$3,200 in Quebec and about \$5,550 in Ontario. The average for the prairie provinces was \$4,900 and in British Columbia it was about \$4,600.

Some Reasons for the Persistence of Small Farms:

Senator Wall asked the question two weeks ago what is the nature of the problem that makes for these non-economic units. Dr. Booth indicated that at least part of the problem was the question of farm size. Agricultural technology is advancing rapidly and capital requirements are becoming increasingly higher. Many of the small farms just do not have sufficient capital and other resources to acquire additional land, to add livestock enterprises or to adopt land improvement practices, which would increase the income of the farm. In some areas too there are inadequate soil resources. The land is just too poor to support cultivated crops. Part of the problem too is the result of settlement patterns and policies established in the past when farmers were settled on holdings which may have been adequate in size at the time but with advancing technology the holdings have become inadequate in size. After an area becomes fully settled it is not easy to consolidate farms into economic units.

In one of our publications, *The Economic Annalist*, Dr. Abell reported on a study and gave some reasons for the persistence of small farms. This was based on a study in two areas of Manitoba where there are a large number of small farms. Almost one-half of the farmers said that they were satisfied with the present size of their farms. Those who were not satisfied had different levels of ambition. Most of those farming on 80 acres or less said they would like to have a quarter section of land, and the ideal for most of those who had a quarter section was to acquire a half section. In spite of the small acreage of the farms and the low receipts from the farm operations, and in spite of the fact that few of the men could be considered old, very few of the farmers planned to abandon

farming for a different occupation. About 85 per cent of them said that they had no intention of leaving for another occupation. Sixty per cent of all the farm operators with sons said they wanted their boys to be farmers. In one of the areas, and among those families with children aged 15 or older, only 30 per cent of the families had one or more children completing grade 9. In both of these areas 40 per cent of the present farm operators got their farms either from their fathers or fathers-in-law. An even greater proportion, 60 per cent, planned to pass their present farm on to a member of their family. These farms will, therefore, still be small when taken over by the next generation.

In regard to credit, 80 per cent of all the men said that they would be able to borrow money if they so desired. Many, however, said that they hesitated to enlarge their farms or farm businesses because they dislike or fear credit for various reasons. About one-half of the farmers said that they were satisfied with their present level of living. Another 25 per cent said that they were fairly satisfied. In one of the areas about half of those who said that they were satisfied gave personal or social reasons such as friendship, religious or family bonds as a basis for their satisfaction. A large majority of the operators said that they preferred to live in their own community rather than any other. The main reasons for this were that they knew everyone in the community and that they lacked knowledge about other communities. There are, therefore, a wide variety of reasons why small farms exist and persist.

Capital Investment and Efficient Operation. At the previous meeting, Senator Golding raised the question of what would be an economic and efficient unit for farm operation. Senator Smith asked about the capital necessary in various kinds of farming. Capital requirements vary a good deal depending on the type of the farm. They vary according to the kind of farm organization and they vary according to tenure and operating arrangements. Farms which emphasize feeding of livestock and which depend to some extent on purchased feed would not require as high capital investment in land. Farms which have some kind of lease or credit arrangement do not require as high an investment by the operator. This would apply in cases where the real estate itself was rented or in cases where livestock and feed are provided under some kind of credit arrangement. Farm operators who rely on hiring custom work would not require as high investments in machinery and equipment. Also operators who have above mechanical skills can do very satisfactorily with secondhand equipment which can be obtained for much less than the price of new equipment. There are differences, too, in the size of income which operators wish to get. There are also differences in the amount of labour that operators have at their disposal. Labour and capital, to some extent at least, can be substituted for one another. Where a great deal of family labour must be employed in the farm business this cuts down to some extent on capital requirements. Real estate values vary, too, depending on location. Nearness to cities, towns, highways, good roads, schools and other facilities generally mean higher real estate values and higher capital requirements. All of these things and no doubt others affect the amount of capital required. Thus, although no clear-cut answer can be given to the question of capital requirements, it is useful, I think, to examine the capital investment in various parts of the country.

The 1951 census provided information on farm investment. The average investment per farm in Newfoundland was about \$5,400, in New Brunswick it was about \$6,000, in Nova Scotia \$6,500 and in Prince Edward Island about \$8,600. The average investment in Quebec farms was about \$10,400. In Ontario, Manitoba and Saskatchewan the average investment per farm was about \$17,000. In Alberta it was \$21,200 and in B.C. about \$15,500.

This is an average overall, and the information is obtained from the census. We have other information obtained in surveys, and in these surveys it includes just the commercial farms, so that the average investment for these surveys will be considerably higher than the investment shown in the census, which includes these very small farms.

Senator WALL: May I intervene to ask this question? These are 1951 figures. Would we have any kind of a guess as to what the revised figures may be for this year, considering the rise in the price of land and everything else: would it be an additional 30 per cent factor, 35 per cent? I only ask for a very rough guess. There would be a difference, of course.

Dr. ANDAL: Yes, the values would be up some since that time. They were, of course, published as average land values. I don't remember what they are.

Senator BARBOUR: Are these 1951 census figures?

Dr. ANDAL: Yes. In addition to the land value there is more investment now in machinery and livestock than there used to be.

Senator CAMERON: There would not be so much change in land values, but there is some. For example, you could buy a binder for \$4,500 in 1951. Today it would cost \$6,100.

Senator HORNER: The report on Manitoba is very interesting. The percentage that are satisfied is quite large. But I wonder whether your survey of Manitoba would include, for example, figures on the Hutterites, or statistics of what they produce?

Dr. ANDAL: No, this survey did not include the Hutterite colonies.

Senator CAMERON: Is it true that, wherever there are Hutterite colonies, they were not included at all?

Dr. ANDAL: They would be included in the census figures.

Senator CAMERON: But not in your studies?

Dr. ANDAL: In surveys of our department we ordinarily go to normal commercial farming operations.

These investment figures from survey farms do not necessarily represent the most desirable investment but they probably represent the average investment for fairly typical and normal commercial farming operations.

A study of 83 poultry dairy farms in Nova Scotia indicated the investment was about \$15,000. In 1955 and 1956 in Ontario 37 farms with 10 to 20 dairy cows had an average investment of \$32,000 while 65 farms with 21 to 30 dairy cows had an investment of \$40,000. Fifty-six general dairy farms had an investment of \$23,000. One hundred and seventy-three beef hog farms had an average investment of \$23,000. Thirty-six general poultry farms had an investment of about \$29,000. Moving over to the Prairie provinces data for 1955 showed that the investment for a half section farm was \$29,000 and for a three-quarter section farm \$42,500. These were on medium productivity soils.

In Saskatchewan the investment on farms with high soil productivity was \$27,500 for a half section farm, \$55,000 for one section farms and \$120,000 for two to three section farms. With the mechanization which has taken place one man with a small amount of hired labour can quite easily handle a one to two section wheat farm. Studies in Alberta showed that the investment for a quarter section mixed farm on high quality soil was about \$20,000 and on medium soil about \$15,000. For half section farms these figures were about \$30,000 and \$26,000, respectively. These figures give some indication of the amount of capital required for an efficient family farm.

Senator SMITH (Kamloops): What is the influence of irrigation farming in Alberta? Is that influence reflected in the capital figure you have mentioned?

Dr. ANDAL: No, that is not reflected in here. This was a survey in a mixed farming area in the northern part of the province where there is no irrigation.

Senator BUCHANAN: In arriving at this capital amount for a farm, suppose there is a residence on the farm worth up to \$20,000. This is so in many cases. Do they take the full value in or do they have some method of arriving at a lesser value?

Dr. ANDAL: That represents a problem in getting values of farm real estate. What we endeavour to do is to get farmers to estimate what their property would sell for if it were being sold on the market. In using that method the buildings are often valued for considerably less than it would cost to build them.

Senator BUCHANAN: In other words, we can assume that, generally speaking, the values that you use are much below the actual replacement value?

Dr. ANDAL: That is correct.

Senator McGRAND: I believe I understood you to say that the investment on a farm in New Brunswick is about \$8,000. You spoke about 70 improved farm acres. What I would like to get is the relationship between the \$8,000 investment and the 70 improved acres. In eastern Canada you may have a large farm of 250 acres including woodland, and less than 70 acres would be under cultivation. I would take it you mean under tillage when you say improved?

Dr. ANDAL: Yes.

Senator McGRAND: But a lot of what you would consider as "improved" land might contribute substantially to the family income, for I suppose that you would not consider woodland to be improved land.

Dr. ANDAL: That is correct.

Senator McGRAND: Is there any way in which you can relate these 70 improved acres to this figures of \$8,000 of investment?

Dr. ANDAL: According to the 1951 census the average investment in New Brunswick was \$6,000. That was the average for all farms in the province.

Senator BARBOUR: Have you got the average income?

Dr. ANDAL: There is a figure for that average income but I do not have it with me. The average income figure would be for income from farming operations. There are no statistics yet to show how much income is derived from activities other than farming. The census may have information showing the relationship between investment on farms and the size of farms, but I do not have that information here.

Senator MACDONALD: Dr. And al, what is meant by investment in this case? Does it involve real estate, livestock and farm equipment?

Dr. ANDAL: Yes, those three items are involved. Real estate includes land and buildings, and there is livestock and there is farm machinery and equipment.

Senator MACDONALD: Thank you.

Dr. ANDAL: Senator McGrand at the last meeting asked whether the Bureau of Statistics would get information on farm values when the census is taken. Information on real estate values, equipment values and livestock values was obtained in the 1951 census but this information was not obtained in the 1956 census. It is planned however, to obtain this information in the next census.

I would now like to turn to a consideration of land use and changes in land use in Canada particularly with respect to its relation to the small farm. The use of land assumes major importance when the resources are inadequate in terms of the level of incomes which are desired. In 1956 the land area in

farms was 173.9 million acres. This is slightly lower than 1951. The change in land area in farms, however, varied in the different regions. In the Atlantic provinces, the land area in 1956 was 6.9 million acres, which was a drop of 11.9 per cent since 1951. This was particularly noticeable in Nova Scotia and New Brunswick. In the Central provinces a total of 35.8 million acres was in farms in 1956 representing a decrease of 5.1 per cent since 1951. In the Prairie provinces an increase of 2.3 per cent took place from 1951 to 1956 raising the farm land area to 126.7 million acres. In British Columbia a decrease of 3.5 per cent took place. The net result shows that increases in the Prairie provinces, mainly in northern areas, offset decreases elsewhere in Canada.

While this change in farm land area was taking place, there was also a considerable reduction in the number of farms. This was in the form of consolidation of farm units and the abandonment of other farms. An overall decrease of 7.7 per cent in the number of farms took place. The greatest change in numbers was made in the central region and Prairie provinces, but the highest percentage change—17.5 per cent—took place in the Atlantic provinces.

Senator MACDONALD: Have you got the breakdown for the Atlantic provinces? For instance, would you know what the production was in Prince Edward Island? Have you got that breakdown?

Dr. ANDAL: Is this the number of farms, or the area?

Senator MACDONALD: The decrease between 1951 and 1956.

The CHAIRMAN: Of the number of farms?

Dr. ANDAL: It was 7 per cent; 34 per cent in Newfoundland; 10 per cent in Nova Scotia; and 16 per cent in New Brunswick.

The net effect of both the change in farm land area and the number of farms was an increase in the average size of farm in all parts of Canada. Since mechanization was easier to apply and it was started earlier it is not surprising that an increase of 9.6 per cent took place in the average size of farms in the Prairie provinces.

The next region in terms of increase in average farm size was the Atlantic provinces, where the increase was 6.8 per cent.

Another important change during the period from 1951 to 1956 was the change in livestock numbers. Inventories were larger for all kinds of livestock in Canada in 1956, with the exception of swine. The most important change was the large increase in beef cattle. While the main increase was in Western Canada, the percentage increase in the Maritime and Central provinces was about 25 per cent over 1951 figures.

I would like to refer to the trend of reduced acreages in farms and improved land which has been going on in the Atlantic region and in the Central provinces for a number of years. This is illustrated in the case of Nova Scotia and Ontario. These provinces are used since the Economics Division had occasion to study the history of land use in these provinces for a conference on conservation which was held at Queen's University in 1943, and for meetings of the National Advisory Committee on Conservation which was held in Lethbridge in 1947. The present area in farms in Nova Scotia is less than one-half of the maximum acreage which existed in 1891. In Ontario the present area in farms has been maintained at about the same level since about 1881, but the improved acreage dropped about 12 per cent from 1891, which was the peak census-year. In Nova Scotia, the present improved acreage is only about one-third the maximum which was attained in 1891.

Senator STAMBAUGH: When you say improved acreage, do you count pasture?

Dr. ANDAL: If it is seeded pasture it is included in the improved acreage.

In spite of this very large decrease in the land and farms and in the improved acreage in Nova Scotia the production did not go down accordingly. Since 1941, for example, the improved acreage in Nova Scotia has gone down by 22 per cent. The physical volume of production from farms, however, had gone down by only about 5 per cent. This means that the productivity per acre is rising due to improved farming practices, and fertilizer and drainage raises the productivity per acre.

Senator BARBOUR: Have you the decrease for Prince Edward Island?

Dr. ANDAL: The productivity per acre in Prince Edward Island rose higher than in the other Maritime provinces during this period. I think the productivity per acre increased for Prince Edward Island about 60 per cent from the middle thirties to the 1950's. These data show a considerable withdrawal of land from crop use, particularly in certain sections of the country, and points to the inability of the land to produce farm crops, and it also suggests that the land might be used for other purposes, such as grazing, forestry and recreation.

In view of the recent increase in numbers of cattle, particularly beef cattle in the Maritimes, a measure of fuller utilization of the unimproved acreage probably has been made. Since the proportion of unimproved land in farms is relatively large and increasing, your committee may wish to consider whether some of these lands could be better used for community pastures, for forests, and for recreation, or possibly other uses.

There is another group of farms which do not have the efficiency advantage of large farms. These are the farms with the value production of about \$2,500 to \$4,000. These are not exactly small farms, but the income obtained is not adequate for the standard of living they wish to have. While not the subject in the earlier part of this statement they are a category of farms that are deserving of consideration by this committee. Possibly the problems of these farms are of the type that can be met by a greater application or use of services and facilities provided by provincial and federal departments of agriculture and by colleges of agriculture. Such facilities might include an extension in the use of credit, and generally the application of other scientific knowledge to increase efficiency.

Solutions to the small farms problem are not easily found. The matter is a complex one, and it would seem that study should be given to a number of matters which might help to yield solutions. There will, however, never be a completely satisfactory solution to this question. There will always be small farms, just as there will always be low incomes in any other sector of the economy. As small farms become larger other farms become larger as well. There will always remain a number of farms that are considerably smaller than the average, and smaller than considered to be an efficient size of unit. Recognizing this point of view, however, does not dismiss consideration of the problem. The functions of departments and colleges of agriculture include striving to improve the status of these small operators and to help them meet their problems.

In this connection perhaps I might leave for the Committee's consideration suggestions for study. It would seem that study needs to be made in specific areas in which these small farms exist to determine why the farms remain small. This would involve appraising the potential of these areas. It would mean a fitting together the information on soil and other physical features of the area with information on type of farming and the organization of farms which prevail. An appraisal would need to be made to determine whether or not adjustments could be made in the farming to permit improvements in income up to some acceptable standard. Where adjustments in farming are possible and likely to provide acceptable income, study would need to be made

as to how these could be brought about. It might be that a special kind of credit program would be of assistance to some farmers in either enlarging their land holdings or by adding intensive crop or livestock enterprises. It may be that such capital needs to be accompanied by advice in its use so that the operations of the farm benefits from wise management. It may be that special extension programs are required to reach this group of farms. For the younger members of the family it may mean special vocational training so that the new generation of farmers are better versed in the advancing technology.

Such studies of the potential of the area will no doubt indicate in some cases that adjustments in farming will not provide the level of living which is considered to be acceptable. In such cases consideration might be given to alternative uses for the land. This may be in forestry, parks, or other recreation. This would also involve relocation of these who wish to move to other areas and for those who wish to move in other occupations. In such areas it may mean providing vocational training for people who wish to move to other occupations and the establishment of more adequate employment facilities to inform people of job opportunities elsewhere. They may suggest some kind of rehabilitation program which would assist families to find new and better opportunities elsewhere.

Senator WALL: Mr. Chairman, may I intervene at this point and ask is it Dr. Andal's suggestion that there be rather pilot-type studies made in special areas or regions? Would that be a fair interpretation of what you are driving at, Dr. Andal?

Dr. ANDAL: Yes I think that these kinds of studies would indicate the type of adjustment that was needed in each of the areas. It seems to me that no single solution is applicable to all of these small farm areas, that each has to be examined to see what the nature of the problem is in each area.

Senator WALL: Then, let me move a step further: there may be five or six pilot-type studies in five or six different areas, each having specialized problems in a sense, and from those special pilot-type studies you should arrive at some generalization, some principles applicable to that particular area but not equally applicable to some other area where the problems might differ.

Dr. ANDAL: I would think so. In considering what should be done about the matter, your committee may wish to review what has been done in the United States where they have been and are now facing a similar problem. I will just indicate briefly something about the Rural Development program in the United States: this is a program that has been set up to meet the problem of low income on small farms.

Although assistance is provided by the Federal Government it is managed by state, country and local committees. In each area it brings together various groups of people, farm, school, church, service clubs, business, industry and others. This "Rural Development Program" has an objective aimed at bringing all agencies into one unified effort to alleviate the low income farm problem. The program has three basic aims:

1. To strengthen industry in low-income areas and widen the range of off-farm opportunities.
2. To help families who want to stay in farming gain the tools, land and information that will permit them to farm successfully.
3. To help all people in these areas arm themselves with adequate training and good health.

The assistance that may be extended to any area that has a substantial number of disadvantaged farms or farm families may be one or more of the following:

1. Intensive on-the-farm educational assistance to the farm family in appraising and resolving its problems.
2. Assistance and counselling to local groups in appraising their resources for improvement in agriculture or introduction of industry designed to supplement farm income.
3. Co-operation with other agencies and groups in furnishing all possible information as to existing employment opportunities, particularly to farm families having under-employed workers.
4. In cases where the farm family, after analysis of its opportunities and existing resources, finds it advisable to seek a new farming venture, the providing of information, advice, and counsel in connection with making such a change.

Although agricultural extension and improvement are considered important, the Rural Development Program points out the fact that a solution to the problem cannot come from efforts of the agricultural sector alone. It requires the efforts of all parts of the economy. The program is noteworthy too, in that it draws upon the efforts and leadership of the people themselves for its progress and success. Governmental agencies act in a supporting role supplying technical and administrative assistance.

There is a good deal of statistical information on the material I have discussed. Some tables have been selected in the event that you may wish to include them in your records. Mr. Stutt, who assisted in the preparation of this material, has other statistical tables to which you may wish to refer during the course of your deliberations.

(For selected list of tables see appendix "A" at end of today's proceedings)

Senator McDONALD (*Kings*): Mr. Chairman, I think we have listened to one of the best papers we have had. We are deeply indebted to these gentlemen and to the Economic Division for the time spent in the preparation of this material; it has required a great deal of research.

Senator WALL: Mr. Chairman, may I follow up the concept of the Rural Development Program, and ask the witness whether it would be possible to get a private summary of such a program, not only as to its basic purpose as outlined in a general form, but the actual operation of such a program in some private area in the United States, showing the breakdown of the type of people engaged in it, the kind of organization that is set up, the educational program and other information needed to get it moving, and what has been accomplished?

I think the concept is a tremendously important one, and one which part of the findings of this committee might point to.

Dr. ANDAL: There is a good deal of written material on the Rural Development Program in the United States. This indicates the organization at the local level and the procedure for analyzing the situation. The material gives examples of the kind of work that is being done.

Senator BUCHANAN: Has the organization been in operation long enough that we can arrive at a conclusion as to whether or not it has been successful in its developments, or are they just at the experimental stage?

Dr. ANDAL: The program started, I believe in 1955. They have taken demonstration groups in 63 counties—that is as of last August—and it is still considered to be in the experimental stage. Many people speak optimistically of the program, and it seems to be encouraging, but I think it is true to say it is still somewhat in the experimental stage.

Senator BUCHANAN: Senator Wall's suggestion was that if we could get one specific instance where they have proceeded along these lines, rather than the general picture, we could then decide as to our expectation of what we would be able to do here.

Senator WALL: Yes. I am interested in the basic concept of all the people concerned in an area. It is of tremendous importance for our democratic milieu, as it were, because we sometimes expect organized governments to do more than we should expect under our set-up.

Senator McGRAND: In what States is this program being carried on? Is it in problem areas such as Alabama?

Dr. ANDAL: I believe they are in most of the States, including the northern States where there are problem areas, such as low income farming areas.

Senator HORNER: What is the organization called?

Dr. ANDAL: It is called the Rural Development Program, and involves the co-operation of all of the different agencies who are working with the farms.

The CHAIRMAN: It is not a survey body, such as this Land Use Committee?

Dr. ANDAL: It is an operating group.

Senator SMITH (*Kamloops*): Would the steering committee consider devoting one session of our hearings to a further review of what has been accomplished by this Rural Development Program?

I agree with what has already been said, that this is one of the most enlightening things that has come before our committee, and I think we could well afford to get a little more general knowledge on it. By doing so, it might eliminate a lot of time later in our deliberations. It would seem to me most valuable to us if Dr. And al could suggest to the steering committee the best way by which further knowledge could be obtained of what has been done so far by this program.

Dr. ANDAL: We would be pleased to discuss this with the steering committee.

Senator BRADETTE: Mr. Chairman, are those inquiries in the United States being made under the central government or state jurisdiction?

Dr. ANDAL: It is managed by the different states, although the central government does provide some assistance to the local groups to carry on the program.

Senator BRADETTE: As has been mentioned, the operation is a good one, but here we have no jurisdiction over the different provinces in Canada.

Senator BARBOUR: The small farm problem is tied in with school districts, churches, co-operatives and one thing and another. I think we would have to consider them altogether in order to get at the root of the troubles.

Senator CAMERON: Mr. Chairman, do you think Dr. And al could arrange to have a representative of the Rural Development Program come to one of our meetings?

Dr. ANDAL: Perhaps Dr. Booth might comment on that.

Dr. BOOTH: Mr. Chairman, I would think it would be quite possible to have that done, if the committee wished to hear such representation.

The CHAIRMAN: We will take that up in the steering committee.

Mr. Stutt, did you prepare any statistics to give to the committee?

Mr. STUTT: Not at this time, Mr. Chairman. Some of the tables are attached to Dr. And al's presentation today.

Senator McDONALD (*Kings*): These tables that were prepared by Dr. And al will form part of our report of the proceedings this morning.

Dr. ANDAL: If that is the wish of the committee.

Senator CAMERON: Mr. Chairman, I would like to say that on few occasions have I seen more information packed into such a short time.

The CHAIRMAN: It has been a very useful presentation.
Whereupon the committee adjourned.

APPENDIX "A"

Selected List of Tables

- Table 1. Agricultural Land Occupancy and Use in Canada, 1956.
- Table 2. Number and Area of Farms, 1956 and 1951.
- Table 3. (a) Changes in Livestock Numbers in the Maritime Region, 1951-56.
(b) Changes in Livestock Numbers in the Central Region, 1951-56.
(c) Changes in Livestock Numbers in Canada, Prairie Provinces and British Columbia, 1951-56.
- Table 4. Area in Farms, Improved and Unimproved in the Province of Ontario.
- Table 5. Area in Farms, Improved and Unimproved in the Province of Quebec.
- Table 6. Area in Farms, Improved and Unimproved in the Province of Nova Scotia.
- Table 7. Occupied, Improved and Unimproved Land in Selected Counties of Ontario.
- Table 8. Changes in Acreage from Census Year of Maximum Area of Improved Land (Six Selected Counties of Ontario).
- Table 9. Total Occupied, Improved and Unimproved. Change from Peak Year of Improved Land and Percentage Change (Ten Selected Counties of Quebec).
- Table 10. Changes in Acreage from Census Year of Maximum Area of Improved Land (Six Selected Counties of Nova Scotia).

TABLE I
AGRICULTURAL LAND OCCUPANCY AND USE IN CANADA, 1956

	Canada ¹	New- foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia
						— ACRES —					
Total Land Area.....	2,271,974,400	91,548,800	1,397,760	13,275,520	17,582,720	335,270,400	213,654,400	135,53,000	140,916,480	159,232,000	229,938,560
Area in Farms.....	173,923,691	71,814	1,065,463	2,775,642	2,981,449	15,910,128	19,879,646	17,931,817	62,793,979	45,970,395	4,538,881
Percentage of Total Area in Farms.....	7.1	0.1	76.2	20.9	17.0	4.7	9.3	13.2	44.6	28.9	2.0
Improved Land.....	100,326,243	24,234	645,492	629,874	951,291	8,629,835	12,572,157	11,453,783	40,506,000	23,736,113	1,160,752
Percentage of Area in Farms (Improved).....	57.7	33.7	60.6	22.7	31.9	54.2	63.2	63.9	64.5	51.6	25.7
Percentage of Total Land Area (Improved).....	4.4	.0*	46.2	4.7	5.4	2.6	5.9	8.4	28.7	14.9	5.1
Area Under Crops.....	62,944,176	15,968	419,092 ²	416,235 ³	617,279 ²	5,549,524 ²	8,219,407 ²	7,686,013 ²	24,480,501 ²	14,850,171 ²	689,749 ²
Percentage of Area in Farms (Under Crops).....	36.2	22.2	39.3	15.0	20.7	34.9	41.3	42.9	39.0	32.3	15.2
Percentage of Total Land Area (Under Crops).....	2.8	.0*	30.0	3.1	3.5	1.6	3.8	5.7	17.4	9.3	.3
Percentage of Improved Land (Under Crops).....	62.7	65.9	64.9	66.1	64.9	64.3	65.4	67.1	60.4	62.5	50.1
Number of Farms.....	575,015	2,337	9,432	21,075	22,116	122,617	140,612	49,201	103,391	79,424	24,748
Farm population.....	2,746,755	13,055	43,296	98,944	128,878	765,459	68,148	206,729	362,231	332,191	112,663
Percentage of total population on farms.....	17.1	3.1	43.5	14.2	23.3	16.5	12.6	24.3	41.1	29.6	8.1

¹ Includes data for Yukon and Northwest Territories.

² Includes field, vegetable, fruit and nursery crop land but excludes home gardens.

* Less than .05

Source: Census of Canada, 1956.

TABLE 2
NUMBER AND AREA OF FARMS,¹ 1956 AND 1951

Province	NUMBER OF FARMS			AREA			AVERAGE SIZE OF FARM		
	1956	1951	Percentage Change	1956	1951	Percentage Change	1956	1951	Percentage Change
Canada.....	575,015	623,091	- 7.7	173,923,691	174,046,654	- 0.1	302	279	+ 8.2
Newfoundland.....	2,387	3,626	- 34.2	71,814	85,040	- 15.6	30	23	+30.4
Prince Edward Island.....	9,432	10,137	- 7.0	1,065,463	1,095,304	- 2.7	113	108	+ 4.7
Nova Scotia.....	21,075	23,515	- 10.4	2,775,642	3,173,691	- 12.5	132	135	- 2.2
New Brunswick.....	22,116	26,431	- 16.3	2,981,449	3,470,234	- 14.1	135	131	+ 3.0
Quebec.....	122,617	134,336	- 8.7	15,910,128	16,786,405	- 5.2	130	125	+ 4.0
Ontario.....	140,602	149,920	- 6.2	19,879,646	20,880,054	- 4.8	141	139	+ 1.4
Manitoba.....	40,201	52,383	- 6.1	17,931,817	17,730,393	+ 1.1	364	342	+ 6.4
Saskatchewan.....	103,391	112,018	- 7.7	62,793,979	61,663,165	+ 1.8	607	550	+10.4
Alberta.....	79,424	84,315	- 5.8	45,970,395	44,459,632	+ 3.4	579	527	+ 9.9
British Columbia.....	24,748	26,406	- 6.3	4,538,881	4,702,274	- 3.5	183	178	+ 2.8
Yukon & N.W.T.....	22	4	+450.0	4,477	432	+936.3	204	108	+88.9
Atlantic Region.....	55,010	66,709	- 17.5	6,894,368	7,824,269	-11.9	125	117	+ 6.8
Central Region.....	263,219	284,256	- 2.4	35,759,292	37,666,459	- 5.1	136	132	+ 3.0
Prairie Provinces.....	232,016	248,716	- 6.7	126,696,191	123,853,220	+ 2.3	546	498	+ 9.6
British Columbia.....	24,748	26,406	- 6.3	4,538,881	4,702,274	- 3.5	183	178	+ 2.8

¹Census of Agriculture.

TABLE 3 (a)

CHANGES IN LIVESTOCK NUMBERS IN THE MARITIME REGION 1951-1956

	1951	1956	Change 1951-56
	number		%
COWS FOR MILK			
Prince Edward Island.....	38,909	43,811	+12.6
Nova Scotia.....	78,970	82,805	+ 4.9
New Brunswick.....	82,362	85,581	+ 3.9
Maritime Region.....	200,241	212,197	+ 6.0
BEEF CATTLE			
Prince Edward Island.....	59,015	79,889	+35.4
Nova Scotia.....	87,232	104,620	+19.9
New Brunswick.....	79,535	98,064	+23.3
Maritime Region.....	225,782	282,573	+25.2
SHEEP			
Prince Edward Island.....	34,386	33,356	- 3.0
Nova Scotia.....	95,396	83,215	-12.8
New Brunswick.....	55,223	63,980	+15.8
Maritime Region.....	185,005	180,551	- 2.4
SWINE			
Prince Edward Island.....	72,499	46,676	-35.6
Nova Scotia.....	48,216	32,670	-32.2
New Brunswick.....	78,393	53,856	-31.3
Maritime Region.....	199,108	133,202	-33.1
POULTRY			
Prince Edward Island.....	978,019	812,343	-16.9
Nova Scotia.....	1,630,305	1,908,524	+17.1
New Brunswick.....	1,230,565	1,124,585	- 8.6
Maritime Region.....	3,838,889	3,845,452	+ .2

SOURCE: Census of Agriculture.

TABLE 3 (b)
CHANGES IN LIVESTOCK NUMBERS IN THE CENTRAL REGION
1951-1956

	1951	1956	Change 1951-56
	number		%
COWS FOR MILK			
Quebec.....	895,539	1,054,297	+17.7
Ontario.....	922,116	1,025,907	+11.3
Central Region.....	1,817,655	2,080,204	+14.4
BEEF CATTLE			
Quebec.....	745,301	947,882	+27.2
Ontario.....	1,543,759	1,875,763	+21.5
Central Region.....	2,289,060	2,823,645	+23.4
SHEEP			
Quebec.....	316,418	338,600	+ 7.0
Ontario.....	360,201	393,811	+ 9.3
Central Region.....	676,619	732,411	+ 8.2
SWINE			
Quebec.....	1,108,306	887,094	-20.0
Ontario.....	1,755,490	1,548,280	-11.8
Central Region.....	2,863,796	2,435,374	-15.0
POULTRY			
Quebec.....	10,090,003	10,882,982	+ 7.9
Ontario.....	23,767,391	24,933,604	+ 4.9
Central Region.....	33,857,394	35,816,086	+ 5.8

SOURCE: Census of Agriculture

TABLE 3 (c)

CHANGES IN LIVESTOCK NUMBERS, CANADA, PRAIRIE PROVINCES AND BRITISH COLUMBIA,
1951-56

	1951	1956	Change 1951-56
	number		%
COWS FOR MILK			
Canada.....	3,758,157	3,892,975	+ 3.4
Manitoba.....	284,610	222,990	-21.7
Saskatchewan.....	401,317	272,226	-32.2
Alberta.....	359,030	282,200	-21.4
Prairie Provinces.....	1,044,957	777,416	-25.6
British Columbia.....	108,765	90,157	-17.1
BEEF CATTLE			
Canada.....	4,612,849	7,126,428	+54.5
Manitoba.....	386,573	648,490	+67.8
Saskatchewan.....	873,532	1,596,806	+82.8
Alberta.....	1,203,989	2,167,011	+80.0
Prairie Provinces.....	2,464,094	4,412,307	+79.1
British Columbia.....	212,493	332,702	+56.6
SHEEP			
Canada.....	1,478,737	1,638,194	+10.8
Manitoba.....	65,481	73,123	+11.7
Saskatchewan.....	136,136	142,696	+ 4.8
Alberta.....	330,503	404,820	+22.5
Prairie Provinces.....	532,120	620,639	+16.6
British Columbia.....	67,474	86,053	+27.5
SWINE			
Canada.....	4,915,987	4,732,799	- 3.7
Manitoba.....	337,953	310,423	- 8.2
Saskatchewan.....	533,263	591,902	+11.0
Alberta.....	930,714	1,211,508	+30.2
Prairie Provinces.....	1,801,930	2,113,833	+17.3
British Columbia.....	49,441	48,472	- 2.0
POULTRY			
Canada.....	64,615,025	67,641,719	+ 4.7
Manitoba.....	6,457,849	5,989,665	- 7.2
Saskatchewan.....	8,587,281	8,219,286	- 4.3
Alberta.....	8,347,509	9,443,521	+13.1
Prairie Provinces.....	23,392,639	23,652,472	+ 1.1
British Columbia.....	3,452,389	4,221,305	+22.3

SOURCE: Census of Agriculture.

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TABLE 4

AREA IN FARMS, IMPROVED AND UNIMPROVED LAND IN THE PROVINCE OF ONTARIO

Census Year	Area in Farms	Improved Land	Unimproved Land
acres			
1851.....	.....	.....	.....
1861.....	.....	.....	.....
1871.....	16,161,676	8,833,626	7,328,050
1881.....	19,259,909	11,294,109	7,965,800
1891.....	21,091,698	14,157,953	6,933,745
1901.....	21,349,524	13,266,335	8,083,189
1911.....	22,171,785	13,653,216	8,518,569
1921.....	22,628,901	13,169,359	9,459,542
1931.....	22,840,898	13,272,986	9,567,912
1941.....	22,387,981	13,363,361	9,024,620
1951.....	20,880,054	12,693,250	8,186,804
1956.....	19,879,646	12,572,157	7,307,489
Loss of Improved Land from 1891-1951 = 1,464,703			
1891-1956 = 1,585,796			

SOURCE: Census of Agriculture.

TABLE 5

AREA IN FARMS, IMPROVED AND UNIMPROVED LAND IN THE PROVINCE OF QUEBEC

Census Year	Area in Farms	Improved Land	Unimproved Land
acres			
1851.....	.....	.....	.....
1861.....	.....	.....	.....
1871.....	11,025,786	5,703,944	5,321,842
1881.....	12,625,877	6,410,264	6,215,613
1891.....	.....	.....	.....
1901.....	14,444,175	7,439,941	7,004,234
1911.....	15,613,267	8,162,087	7,451,180
1921.....	17,257,012	9,064,650	8,192,362
1931.....	17,304,164	8,994,158	8,310,006
1941.....	18,062,564	9,062,671	8,999,893
1951.....	16,786,405	8,828,968	7,957,437
1956.....	15,910,128	8,629,835	7,280,293

Loss of Improved Land 1921-1956 = 434,815

SOURCE: Census of Agriculture.

TABLE 6

AREA IN FARMS, IMPROVED AND UNIMPROVED LAND IN THE PROVINCE OF NOVA SCOTIA

Census Year	Area in Farms	Improved Land	Unimproved Land
1851.....	.....	.....	.....
1861.....	.....	.....	.....
1871.....	5,031,213	1,627,091	3,404,122
1881.....	5,396,382	1,847,444	3,548,938
1891.....	6,080,695	1,993,697	4,086,998
1901.....	5,080,901	1,257,468	3,823,433
1911.....	5,260,455	1,257,449	4,003,006
1921.....	4,723,550	992,467	3,731,083
1931.....	4,302,031	844,632	3,457,399
1941.....	3,816,646	812,403	3,004,243
1951.....	3,173,691	661,975	2,511,716
1956.....	2,775,642	629,874	2,145,768

Loss of Improved Land from 1891-1951 = 1,331,722

1891-1956 = 1,363,823

SOURCE: Census of Agriculture.

TABLE 7

OCCUPIED, IMPROVED AND UNIMPROVED LAND IN SELECTED COUNTRIES OF ONTARIO
(TOTAL FOR 21 COUNTRIES)**

Census Year	Occupied	Improved	Unimproved
1851.....	5,208,566	2,161,119	3,047,447
1861.....	6,744,669	3,287,842	3,456,827
1871.....	7,934,944	4,629,124	3,305,820
1881.....	9,236,749	5,731,874	3,504,875
1891.....	10,561,762	7,234,524	3,327,238
1901.....	10,544,007	6,809,995	3,734,012
1911.....	9,770,549	6,291,774	3,478,775
1921.....	9,385,311	5,683,266	3,702,045
1931.....	9,231,772	5,571,796	3,659,976
1941.....	9,198,229	5,572,013	3,626,216
1951.....	8,550,676	5,146,232	3,404,444
1956.....	7,260,345	4,590,201	2,670,144

Loss of Improved Land from 1891-1951 = 2,088,292

1891-1956 = 2,644,323

SOURCE: Census of Agriculture.

** Counties included are:—Durham, Elgin, Grey, Hastings, Lanark, Middlesex, Norfolk, Northumberland, Ontario, Peterborough, Prince Edward, Russell, Victoria, Welland, Wellington, York (Lennox, Addington and Frontenac), (Brant and Wentworth).

TABLE 8

CHANGES IN ACREAGE FROM CENSUS YEAR OF MAXIMUM AREA OF IMPROVED LAND
(SIX SELECTED COUNTIES OF ONTARIO)

County	Census Year	Maximum Area		Area 1956		Loss of Improved Land	% Loss of Improved Land
		Improved	Un-improved	Improved	Un-improved		
Elgin.....	1891	404,546	126,044	329,703	88,374	74,843	18.5
Grey.....	1891	691,330	367,704	573,843	381,234	117,487	17.0
Hastings.....	1891	431,984	306,337	253,012	351,757	178,972	41.4
Lanark.....	1891	429,275	230,647	178,098	337,983	251,177	58.5
Russell.....	1911	266,909	120,525	164,525	42,373	102,384	38.4
Wellington.....	1891	645,642	170,495	471,562	123,410	174,080	27.0

SOURCE: Census of Agriculture

TABLE 9

TOTAL OCCUPIED, IMPROVED LAND. CHANGES FROM PEAK YEAR OF IMPROVED LAND
AND % CHANGE (IN 10 SELECTED COUNTIES) QUEBEC

County	Peak Year	Maximum Area		Area 1956		Loss of Improved Land	% Loss of Improved Land
		Improved	Un-improved	Improved	Un-improved		
Argenteuil.....	1881	123,804	164,631	72,224	94,321	51,580	41.7
Bellechasse.....	1931	195,994	144,017	145,863	136,985	50,131	25.6
Montreal Is.....	1921	63,704	11,254	18,526	2,830	45,178	70.9
Quebec.....	1911	76,816	79,675	35,888	34,554	40,928	53.3
Terrebonne.....	1921	162,779	151,051	89,567	73,339	73,212	45.0
Bagot.....	1941	175,369	46,625	162,541	50,543	12,828	7.3
Bonaventure.....	1941	132,855	285,655	128,715	226,983	4,170	3.1
Saguenay.....	1941	27,403	60,477	29,861	44,096	2,458	9.0
Shefford.....	1921	188,213	158,654	184,117	130,993	4,096	2.2
Sherbrooke.....	1941	52,622	49,181	48,434	34,067	4,188	8.0

SOURCE: Census of Agriculture

TABLE 10

CHANGES IN ACREAGE FROM CENSUS YEAR OF MAXIMUM AREA OF IMPROVED LAND
(SIX SELECTED COUNTIES IN NOVA SCOTIA)

County	Census Year	Maximum Area		Area 1956		Loss of Improved Land	% Loss of Improved Land
		Improved	Un-improved	Improved	Un-improved		
Cape Breton.....	1891	117,128	228,986	17,618	89,818	99,510	85.0
Colchester.....	1891	169,680	343,238	70,271	204,895	99,409	58.6
Cumberland.....	1891	179,172	405,640	88,104	192,953	91,068	50.8
Kings.....	1891	194,486	134,990	92,953	156,144	101,533	52.2
Richmond.....	1881	43,946	122,109	4,028	46,076	39,918	90.8
Shelbourne.....	1881	50,460	113,324	948	8,614	49,512	98.1

SOURCE: Census of Agriculture

Canada. Land Use in 1959
Committee on (Land Use)
2nd Session, 24th Parliament, 1959

THE SENATE OF CANADA



Parliament
PROCEEDINGS
OF THE
SPECIAL COMMITTEE OF THE SENATE
ON
LAND USE IN CANADA

No. 3

THURSDAY, MARCH 19, 1959

The Honourable Arthur M. Pearson, Chairman

WITNESSES

Dr. M. E. Andal, President, Canadian Agricultural Economics Society;
Dr. W. E. Haviland, Vice President and Editor of the Canadian
Journal of Agricultural Economics; currently attached to the Royal
Commission on Price Spreads of Food Products; and Professor P. A.
Wright, Department of Agricultural Economics, Ontario Agricultural
College, Guelph, Ontario.

APPENDIX B

Selected List of Publications, Articles and Tables relating to The Small
Farm Problem.

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Power
Basha	Horner	Smith (<i>Kamloops</i>)
Bois	Inman	Stambaugh
Boucher	Leger	Taylor (<i>Norfolk</i>)
Bradette	Leonard	Taylor (<i>Westmorland</i>)
Buchanan	MacDonald	Turgeon
Cameron	McDonald	Vaillancourt
Crerar	McGrand	Wall
Emerson	Methot	White—31.
Gladstone	Molson	
Golding	Pearson	

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—
Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

THURSDAY, March 19, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 10.30 A.M.

Present: The Honourable Senators Pearson, *Chairman*; Barbour, Basha, Bois, Bradette, Buchanan, Cameron, Gladstone, Golding, Higgins, Inman, Leonard, McDonald, McGrand, Smith (*Kamloops*), Stambaugh, Taylor (*Westmorland*), Turgeon, Vaillancourt and Wall—20.

In attendance: Mr. Ralph A. Stutt, Committee Consultant, and the official reporters of the Senate.

The Committee proceeded to the further consideration of the Order of Reference of Tuesday, February 17, 1959.

Mr. Stutt answered certain questions and filed a Selected List of Publications, Articles and Tables Relating to the Small Farm Problem which was ordered printed as Appendix B to the proceedings.

The following witnesses were heard and questioned: Dr. M. E. Andal, President, Canadian Agricultural Economics Society; Dr. W. E. Haviland, Vice President and Editor of the Canadian Journal of Agricultural Economics, currently attached to the Royal Commission on Price Spreads of Food Products; and Professor P. A. Wright, Department of Agricultural Economics, Ontario Agricultural College, Guelph, Ontario.

At 12.30 P.M. the Committee adjourned until Thursday, April 16, 1959, at 10.30 A.M.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, THURSDAY, March 19, 1959.

The Special Committee on land use in Canada met this day at 10.30 a.m. Senator Arthur M. Pearson in the Chair.

The CHAIRMAN: Gentlemen, we have a quorum; please come to order.

First, Mr. Ralph Stutt will give us a brief statement on what he has prepared in answer to questions asked at the previous meeting.

Mr. RALPH STUTT: Mr. Chairman, before I reply to the questions asked last week, I would like to make one correction in the printed proceedings.

On page 34 Dr. Andal is reported to have said that 7 per cent of all farms had less than 70 improved acres. That should read 37 per cent, instead of 7 per cent.

Senator SMITH (*Kamloops*): Mr. Chairman, while we are dealing with corrections, I think there is a typographical error on page 47, where under the heading "province of Ontario farm population" there appears the figure of 68,148.

Mr. STUTT: The figure should be 683,148 instead of 68,148.

At the last meeting on March 12, 1959, Senator John A. McDonald asked Dr. Booth, Director, Economics Division, Department of Agriculture to make "a list of studies that have been prepared and if possible to give members of the Committee copies of the reports of those studies and investigations and surveys that have been completed"...

Dr. Booth indicated in his reply that the list is very large and goes back over a period of years. I have prepared a selected list of publications, articles and talks relating specifically to phases of the small farm problem. It includes material which has been published within the last ten to 15 years. I am filing the list at this same time for your information. It is suggested that you pick out the reports in which you are particularly interested and obtain a copy from Mr. James D. MacDonald, committee clerk, in Room 369-E (Senate Committees Branch).

I have mimeographed copies of the selected list of publications, articles and tables relating to the small farm problem. These copies will be distributed among members of the committee at this time. The list will be included as an appendix at the end of today's proceedings.

(See Appendix B)

In addition to the above information Senator McDonald also requested a list of the projects that will be undertaken by the Economics Division this year. Projects that deal with phases of the small farm problem will be undertaken by the Production Economics Section of the Economics Division at the Head Office in Ottawa or at the Regional offices of the Economics Division at Truro, Nova Scotia; Winnipeg, Manitoba; Saskatoon, Saskatchewan; Edmonton, Alberta; and Vancouver, British Columbia. Following is the list of projects with a brief note of explanation which I would ask to be taken as read:—

The statement follows:

LIST OF PROJECTS, 1959-60
Relating to
THE SMALL FARM PROBLEM

Economics Division, Canada Department of Agriculture

1. *The capital structure of Canadian agriculture*

The purpose of this project is (1) to assemble data on the capital structure of Canadian Agriculture in various areas and farm types (2) to assemble basic information for a balance sheet in agriculture, and (3) to find out the relative size and shifts of the various components of investment within types and sizes of farms.

2. *Shifts in Canadian agricultural production*

The purpose of this project is to accumulate information concerning shifts of farm products and production and to determine the relative importance of such shifts.

3. *Factors associated with good farm operators*

One problem in making agricultural credit available to small farmers, particularly those with relatively small net worths, is the traditional insistence of collateral. This necessitates more reliance by loaning agencies on estimations of the ability of farmers to accumulate capital and to repay loans. If present collateral requirements are to be relaxed, the estimate of the managerial ability will assume greater importance. The purpose of this project will be to derive salient criteria for estimating farmer's innate capacity to manage the resources he controls.

4. *A socio-economic survey of selected rural communities in P.E.I.*

This study will be confined to farm operators and their families. It will be focussed on (1) land utilization (2) changes in rural population (3) roads, power facilities, schools and other services as related to changes in population and living standards (4) influence of farmer and women's organizations on communities (5) influence of availability of credit on land use and population trends (6) relationship of gross and net farm income to level of prosperity and living standards in a district (7) costs of production (8) mechanization (9) amount and proportion of off-farm income of total income (10) influence of social services such as old age pensions, family allowances, etc. (11) cultural and educational levels (12) recreational needs of the community.

5. *Population Changes in Canadian Agriculture*

Rural-urban population movements between 1951 and 1956 will be studied as well as other farm and non farm changes by census divisions and counties. The study will be extended to other population factors.

6. *Changes in Farm Organization, Manitoba*

Changes in organization of farms in a section of Southern Manitoba which were included in a study in 1954 will be studied. These relate to the predominant types and sizes of farms found there, and includes a sample of small farms. The information covers all inputs and outputs for specific sizes and types of farms.

7. *A Study of Small Farms, Saskatchewan*

In conjunction with the "changes in farm organization of grain and grain-livestock farms" projects, small farms (half-section) will be singled out for special consideration. These studies will be conducted on Weyburn loam soils

and will observe changes which took place on similar sized farms since 1954. The reasons for the continuation of half section grain farms, which are regarded as inefficient commercial farms will be studied. Tenant-landlord arrangements will also be studied as well as the broader aspects of land tenure. The effect of changes in tenure arrangements from other factors such as P.F.A.A. benefits, grain sale permit policies and acreage bonuses will be assessed.

8. *Changes in Farm Organization, Alberta*

A revisit to farms of the Grey wooded soil zone in the Rocky Mountain House area which were visited in 1955 will be made and data obtained to show changes that have taken place. A special phase of the study will include an examination of the tenure situation. Possible tenure arrangements are basic to the related questions of small farms and the needs for farm credit which are a growing concern.

The CHAIRMAN: Honourable senators, we have with us today Dr. Andal, whom I would ask to come forward and introduce his two associates.

Dr. M. A. Andal, President, Canadian Agricultural Economics Society:

Mr. Chairman, and honourable senators, as President of the Canadian Agricultural Economics Society, I would like to express the appreciation of the society, for being invited to present a brief on the small farm question. You may be interested in hearing briefly something about the Canadian Agricultural Society before my colleagues present the brief.

The Canadian Agricultural Economics Society was formed in 1929 to encourage the investigation, study and interpretation of agricultural economics with particular reference to the Canadian economy.

The society is a professional one and members are employed mainly by universities, governments and by industry. There are more than 500 members and subscribers. Many of these are in other countries.

The main activities of the society are the publication of the Canadian Journal of Agricultural Economics, holding annual meetings for the presentation of research papers, sponsoring annual Workshop Conferences and encouraging high quality graduate work in agricultural economics through the presentation of awards for research work.

Members of the society consider that the problems facing small or low income farms are among the most important in agriculture. For this reason, a week-long conference or Workshop as it is called, was held in 1958 to discuss this question. There were 46 people in attendance from 7 provinces in Canada and from other countries. Among them were people from governments, universities, industry, and farm organizations. There is, of course, no uniformity of opinion as to what should be done about this question but during the course of the Workshop Conference the views expressed may be of some value to your Committee in its deliberations.

My colleagues who will be presenting this brief are Dr. W. E. Haviland and Professor P. A. Wright. Dr. Haviland is Vice-President of the society and editor of the Canadian Journal of Agricultural Economics. His present position is Commodity Chief, The Royal Commission on Price Spreads of Food Products. Professor Wright was one of the leaders in the Workshop Conference and is Chairman of the Research Committee of our society. He is on the staff of the Department of Agricultural Economics, Ontario Agricultural College, Guelph. Both are appearing today as representatives of the Canadian Agricultural Economics Society. / -

The CHAIRMAN: Gentlemen we have with us this morning Dr. W. E. Haviland, who is Vice-President and Editor of the Canadian Journal of Agri-

cultural Economics. He is currently attached to the Royal Commission on Price Spreads of Food Products. We are glad to have you with us this morning, Dr. Haviland.

Dr. W. E. Haviland, Vice-President of the Canadian Agricultural Society:

Mr. Chairman and honourable members of the Senate Committee on Land Use, I come from Northern Ontario, a region of small farms. I attended McMaster University in Hamilton and the Universities of Toronto, Harvard and Oxford. After that I returned to Canada, to become Associate Professor of Agricultural Economics at Macdonald College of McGill University. I am presently Commodity Chief of the Royal Commission on Price Spreads of Food Products.

Mr. Chairman, Members of the *Senate Committee on Land Use*:

President Andal has just spoken about the nature and work of our Society. I would like to repeat that one of our most important activities is the holding of an annual Workshop on some important problem facing the Agricultural industry. Three years ago, the Workshop theme was "Comparing Farm and Non-Farm Incomes"—we have brought along some copies of the proceedings of that Workshop in case you might like to refer to them. They are not without relevance to the relative income aspects of the Small-Farm Problem. Two years ago the Workshop was on "Agricultural Adjustments" and last year the Workshop was on the Small-Farm Problem. This year the Workshop theme is to be "Vertical Integration".

The procedure was to begin the five-day Workshop with a plenary session addressed by three key-note speakers. The key-note speakers presented prepared talks designed to set the stage for three discussion sub-groups. Each sub-group was charged with the responsibility of reporting back to the Workshop in a final plenary session.

1. The first of the three key-note speakers at the Quebec Workshop was Mr. J. B. Rutherford of the Canada Department of Fisheries, and at present Director of Research of the Royal Commission on Price Spreads of Food Products. His key-note paper was concerned with the nature and extent of the small-farm problem. This problem of definition was the special assignment of discussion sub-group No. 1.

2. The second key-note speaker was M. Jean-Marie Martin, Dean of the Faculty of Social Sciences at Laval University. His paper was concerned with the socio-economic implications of the extensive consolidation of small farms into efficient family farm units. The socio-economic implications of the small-farm problem was the assignment of discussion sub-group No. 2.

3. The third key-note speaker was Dr. S. C. Hudson, of the Agriculture and Fisheries Division, Canada Department of Trade and Commerce. His paper was concerned with policy implications of the small-farm problem. This was the assignment of discussion sub-group No. 3.

Today, honourable senators, I will try to summarize these three key-note papers for you, and then my colleague, Professor Wright, will describe the deliberations and conclusions of the three discussion sub-groups. We would like to make it clear that in presenting the findings of the Workshop we are not necessarily presenting the views of each and every Workshop participant. You will also understand that brief summaries like these cannot possibly do justice to the key-note papers and the intensive work of the sub-groups. We are just now editing the complete proceedings of the Workshop, and when this is published in a few weeks' time we would like to send copies to you.

The CHAIRMAN: That would be very nice: thank you. I think we can use it.

Dr. HAVILAND:

1. *Nature and Extent of the Small-Farm Problem:*

Mr. Rutherford began his key-note paper by pointing out that although the small-farm problem is part of what is generally referred to as "the farm problem", the breaking out of the small-farm problem for special study marked a major step forward toward a more manageable analysis and a more enlightened public understanding. The overall farm problem is distorted when the small holdings are included in the general picture. For example, the average net income for all farms in Canada during the period 1951-55 was \$2,772.00, but for full-scale farms only it was \$4,165.00. The reference for these figures is the publication of the Royal Commission on Canada's Economic Prospects by Dr. W. M. Drummond and W. MacKenzie entitled *Progress and Prospects of Canadian Agriculture*, Queen's Printer, Ottawa 1957, page 334. I would also like to refer you to chapter 3 of this book dealing with the subject of "Canada's Land Resources".

Serious consideration of the small-farm problem poses the need for clarifying what is meant by the term "small farm". It would seem that the term should comprise farms which have a small dollar volume of business as well as farms that are small in acreage. This does not mean, of course, that all small-size farms have low incomes or that all low-income farms are small-size. In the final analysis, surely the important thing is to measure the size of a farm in terms of the adequacy of the level of living which it enables the farm family to achieve. More and more, society is concerning itself with human welfare. From this point of view, we can readily understand how it is that in our ever-changing world the small-farm problem is not something that can be solved once and for all. It is a problem that has always been with us—albeit with varying degrees of urgency.

In the last two or three decades, the small-farm problem has been aggravated by our changing way of life (our rising material standards) and by the mechanization and commercialization of our agriculture. Farm mechanization often becomes economically feasible only when the farm is enlarged. Commercialization exposes the farm family to the rigors of the market from three sides—in the sale of their farm products, in the purchase of farm machinery, supplies and services, and in the cash purchase by the family of an ever-changing content of living. In relation to changing rural living, no single dollar figure of an adequate farm family income—net farm income plus income from non-farm sources—can be established because rates of remuneration and scales of living vary so much from coast to coast across Canada. One thing is sure, however, that by any reasonably acceptable standard of income adequacy, there are about 200,000 small farms in this country. In 1951, over one-third—37.9 per cent—of the 622,395 farms had gross sales—gross not net—of less than \$1,200.00. These small farms accounted for an almost negligible proportion of all sales off farms. The amounts and proportions of land, machinery, labour and management on these small farms are such as to impede productive and profitable farming. It is usually said that these small farms are not receiving their fair share of the national income, but one could just as well say that they are not producing their fair share of the national income.

Geographically, the small farm problem appears to be most acute in Quebec and the Atlantic Provinces, although there are small farms aplenty in British Columbia, Ontario and even the Prairie Provinces.

I might interject here that, as far as Quebec is concerned, I have published a paper on this problem, and will be glad to leave a few copies of it for your Committee.

Some of the units classified as small farms are not really farms at all, but rather rural residences with out-size gardens and an armful of miscellaneous livestock. Some other small farms are not full-time farms at all but only part-time.

A third class of small farm, however, comprises the hard core of the small farm problem. This third class includes small farms on the fringes of settlement—ones that have too little land, too poor soils, too rough terrain, or are too wooded to yield satisfactory incomes for the farm family. In these frontier areas, only extensive farming, often combined with forestry, can hope to pay well in the long run. Small farms can also be found in long-established farming areas in which institutional forces inhibit the consolidation of small units, or where shifting markets and changing technology render obsolete existing types of farming for which small units were more appropriate.

In concluding his key-note paper, Mr. Rutherford very properly suggested that there are many gaps in our field of knowledge on the small-farm problem, and said:

“What is required in the development of adequate research on the small-farm problem is a co-ordinated program of study in all areas. This program should be so planned as to make possible inter-regional comparisons of the nature of the problem, to reveal the relative scales of living afforded by various types of small farm operations, and to yield an analysis leading to wise and useful policy determination.”

2. *Socio-Economic Implications of Extensive Consolidation of Small Farms into Efficient Family Farms:*

Dean Martin began his key-note paper by saying that he means by the word “consolidation” both the physical process of assembling farms into a larger unit and the increased efficiency resulting therefrom. There has to be a unity or complementarity among consolidated portions.

One must proceed to ask under what circumstances does consolidation take place. How does it happen? For what purpose?

The extent of consolidation is influenced by natural factors—such as soil, climate and topography; by economic factors—such as availability of domestic and export markets and of capital; by human factors—such as availability of labour; and by social factors—such as neighbourliness. The kind of consolidation being envisaged is that which takes place freely within our dynamic economy with emphasis being placed on individual initiative. What is not being considered are historical consolidation phenomena like European feudalism, the British enclosure movement and Russian and Israeli collectivization.

What is meant here by farm consolidation, then, is the process of enlarging the size of a farm unit, freely carried out by the farmer, with a view to increasing efficiency, under unified management of the various farming operations, and taking place in regions where, for physical, economic and social reasons, extensive farming is appropriate. The efficient family farm which is the objective of consolidation, whether it be owner or tenant operated, would give the operator enough income to provide for the needs of his family as defined by accepted standards of living.

This kind of consolidation is a phenomenon of a commercial agriculture, and it takes place easier in prosperous times and in regions with a low density of population. Since it involves physically enlarging farm units, consolidation is of concern to local institutions and governments.

What are the social and economic implications of consolidation? Fewer families would mean fewer farm homes. There might be an increase in the number of other farm buildings, however, and certainly they would need to be relocated and rearranged. The amount of social interaction will decrease as a result of consolidation, and the rural areas may become less pleasant and

picturesque. Changing size and shape of farms will create legal problems, particularly in old established areas. Farming methods will change. A new approach to farm credit and investment will be needed. Communications and other rural services will need to be remodelled. Improved marketing organization will be needed. New kinds of social relations and community activities will have to be forged. Religious organization and municipal and school administration will require remodelling.

Prior to promotion of consolidation, a great deal of research into these problems should be undertaken to try to evaluate the nature, scope and effects of consolidation. One must be wary of farm consolidation becoming an end in itself, instead of a means of improving the economic and social situation of the individual farmer and of agriculture in general.

The decisions and adjustments which would need to be made by the consolidating farmer and his family would be complex, pervasive and probably irreversible. Besides the numerous adjustments which would be called for in his farming operations, the farmer will need to take account of his own management ability. Managing a large farm is not the same thing as managing a small farm. Adjustment decisions with respect to his family would involve, among other things, the schooling of his children and their recreational pursuits.

The farm consolidation movement would require consolidation of the municipality, of rural schools, and of religious congregations. Other local economic or social units, such as co-operatives and credit unions, would have to consolidate to remain effective and solvent.

As far as the municipality is concerned, territorial limits would need to be redefined, the property tax structure revised, and modifications made in the systems of health protection, water supply, roads, drainage and irrigation.

As far as schools are concerned, a sufficient enrollment would be needed to justify increased investment in consolidated schools and increased costs of transporting scholars greater distances.

As far as religious congregations are concerned, here too consolidation would be needed to ensure adequate religious care of the people. This would meet with opposition. A redefinition of the parish territory could be considered as destroying the foundations of a way of life.

Since farm consolidation is an outgrowth of commercialization and technological advance, it would result in increased production. This would likely mean that the federal Government would become more deeply committed in agricultural research and marketing. But since the research and marketing problems resulting from consolidation would vary greatly from one part of the country to another, a good deal of freedom should be left to regional and local representatives of the federal Government in the application of central policies. Federal policies might include a vigorous export program, sound price support, economic intelligence, and agricultural research. New types of credit assistance would have to be devised, aimed at helping efficient farmers rather than keeping poor ones on farms.

At the provincial level, farm consolidation would call for a new agricultural policy based upon an accurate knowledge of the new farming conditions and of their implications for the individuals concerned and for the local units of social organization. This would imply an intensive program of research on the part of provincial governments, universities etc. A soil-production survey could help towards a rational program and pattern of land use. Also, more precise knowledge of local and regional marketing organization is needed to be able to help farmers with their marketing problems. Provincial farm subsidies and credit programs would need to be revised. Provincial govern-

ments should be ready to provide technical, as well as financial, services to local units of social organization like municipalities, school boards, and farmers' organizations in order to help them adapt themselves to farm consolidation.

Dean Martin concluded by a reaffirmation that such aid should truly favour the establishment of efficient family farm units.

3. Some Policy Implications of the Small-Farm Problem

Dr. Hudson began his key-note paper by saying that our objective in dealing with the small-farm problem is the full utilization of rural human resources.

While not new, the small-farm problem has increased greatly in importance as a result of our changing way of life and the mechanization and commercialization of our farms. A generation ago and earlier, the wants of the farm family were simple and were supplied in large part from the regular production of the farm. Today, there are few farm homes which depend to any great extent on home production for food, fuel and clothing. A changed set of values now requires the expenditure of cash for a great variety of home conveniences and luxuries, for higher education and entertainment.

In contrast with this rapidly changing way of life, farm production methods have changed more gradually. The small-farm problem is, therefore, the result of a lag in adjustments in agricultural production. The problem is not a static one—the farm which thirty years ago was considered an optimum economic unit has become marginal, while concurrently the effects of improved transportation facilities in making available off-farm employment has transformed some submarginal farms into prosperous part-time farms and rural residences.

In order to deal adequately with the small-farm problem, one of the basic needs is more information about these farms, their location and characteristics, their resources and potentialities. Much can be done to fill this need for information through the census and special farm income surveys such as that recently conducted by the Dominion Bureau of Statistics. High priority should be given to this work.

The major problem of the small farm is limited production resources. The small physical size of most of our small farms is the result of early land settlement policies. The "long" or "square" 100 acres was used as the survey unit in much of Ontario, and the quarter-section of 160 acres was used in the prairie provinces. Although adjustments to larger size are continuously occurring, the small-farm problem is concerned with the serious lag in this rate of adjustment.

Acreage is not always the limiting factor however. The manner in which the land is farmed is also important. The amount and quality of livestock kept and of equipment used likewise limit farm output and income.

The principal factor determining the amount and quality of productive resources (land, livestock and equipment) is the capital which the farmer can command at reasonable rates of interest. Many farmers are tied to a small low-income farm because they cannot afford to reorganize it, nor can they dispose of it for sufficient cash to enable them to move to town and enter other employment. Consideration should be given therefore to the need for a lending agency which could release such "captive farmers" by purchasing their farms at a reasonable price, for resale to neighbouring farmers for the establishment of economic size units.

A second major problem of the small farm is poor management. Appropriate farming adjustments require additional knowledge as well as capital. Sometimes poor farming is the result of failure to apply known improved techniques. It may also result from the fact that the operators of small farms tend to be older and to have a lower level of education.

To sum up Dr. Hudson's paper so far: poor farming may be traced to a combination of the personal and capital factors. The solution of the small-farm problem therefore suggests the need not only of more capital but also of technical assistance or supervision.

Another important problem of the small farm is high overhead costs of equipment and labour in relation to output, as contrasted with larger farms. The possibility of meeting this problem through co-operative farming deserves careful consideration. Co-operative farming could provide groups of two, three or four small farms with the advantages of large-scale units through a pooling of equipment, operating capital and labour. But co-operative farming can succeed only if the participants are prepared to sacrifice some of the independence which has been so characteristic of owner-operated farms.

Much can be done to relieve the plight of small farmers by making available to members of the family either full-time or part-time off-farm employment by the establishment of local industries. There is need also for vocational education which can provide more employment opportunities to surplus farm family members by fitting them for off-farm work. Given proper advice, many small farmers could also take advantage of their location to supplement their incomes from the tourist trade and other recreational enterprises.

Price is also a most important factor in farm income, but its impact is quite different as between small and large farms. A moderate level of price support may provide an adequate income guarantee for large-scale low-cost producers but be quite inadequate for small-scale high-cost farmers. Real relief from low income on small farms must therefore come not from price support alone, but from adjustments to increase farming productivity.

The small farmer is often in a weak position in marketing his product. His limited output may undermine his bargaining power. His weak financial position compels him to unload at whatever current market price. His lack of capital may have prevented him from producing the top-quality produce which commands premium prices. Here again, special credit facilities and technical assistance, and also co-operative marketing, may strengthen his position.

Canada's Veterans' Land Administration program merits particular attention because it contains features which appear appropriate in approaching the small-farm problem. Under the V.L.A., credit is made available at a moderate rate of interest, repayment provisions are flexible and are adapted to the type of farming, title to the real estate is retained initially by the V.L.A., and the borrower is provided with technical supervision.

Experience in the United States should also be given consideration. The recent Rural Development Program there takes a balanced farm, industry and community approach to meeting the needs of small farms.

In certain regions of Canada where soils are generally poor, the solution to the small-farm problem is not to be found in internal farming adjustments or the consolidation of farms, but rather in the removal of this land from agriculture altogether, and the diversion of it to forestry or recreational purposes. That is to say, such land must be diverted from sub-marginal agricultural use to profitable non-agricultural uses.

Dr. Hudson concluded his paper by saying that the small-farm problem, being concerned as it is with the full utilization of rural human resources, is one of the principal factors confronting Canadian agriculture.

Thank you very much.

The CHAIRMAN: Thank you, doctor. That is certainly a very fine paper. I think, senators, there is a great deal of meat in this brief for future study by our committee. It might be taken into consideration when he hear from the

various provinces and representatives of agricultural departments who will come to this committee later on. Are there any questions that anyone would like to ask, before we go on?

Senator HIGGINS: On page 4, Dr. Haviland, you say: "In 1951, over one-third—37.9 per cent—of the 622,395 farms had gross sales of less than \$1,200." Were these only small, part-time farmers? Were they just getting food for themselves?

Dr. HAVILAND: Senator, I suggest that there are three main classes. At the bottom of page 4 and through page 5 I suggested that some of these are not really farms at all.

Senator HIGGINS: That is what I am asking. These are rural residences, you mean?

Dr. HAVILAND: That is right.

Senator HIGGINS: When you were making up your averages of income did you include these in it?

Dr. HAVILAND: This has usually been the practice, to include these small farms. They are not all rural residences. Some of them are; some of them are part-time farms; and still another group of them are what I would call the hard core of the small farm problem. They are the farms which are located on the fringes of settlement or in long-established areas where institutional rigidities prevent necessary adjustments in farming.

Senator SMITH (*Kamloops*): Mr. Chairman, I would like to ask Dr. Haviland a question with respect to certain provisions under the V.L.A. Act. Under this V.L.A. scheme title to real estate is retained initially by V.L.A. and the borrowers are provided with technical supervision. That retention of title is not wholly related to the credit and is held for the purpose of security until the credit is liquidated.

Dr. HAVILAND: That is correct.

Senator SMITH (*Kamloops*): There is an element of supervision and training in that. Throughout this whole study there is woven into the small farm problem a social angle. Right at the beginning where the study refers to those who farm in fringe areas on poor land, and so on, I think you collide with a social problem where these poor farming areas become harbours for incompetents, people who lack self-confidence and who for many reasons fear the competition they would face in the more competitive farming areas or in other fields of occupation such as industry and business, and so on. I think that is a problem one faces in the small farm area, and I am wondering to what extent this idea of retaining the title has been successful under the V.L.A. scheme of things?

Dr. HAVILAND: If I might, Senator Smith, I would first of all say that the retention of title is mainly as collateral to the V.L.A. for the money which they have loaned. The supervision which is provided is related to that, but it is a separate feature where the local representative of the V.L.A. sits down with the farmer and works out a farm plan in considerable detail, one that the two of them figure will improve the income of the farm. The second point you made about some of these small farms being inefficiently handled, I think there is some truth in that. With respect to your third point about more information as to the way V.L.A. works, I could attempt to say something about that but, if I might presume to make a recommendation to your committee, Mr. Chairman, I think you would find it very worth while to have a representative from V.L.A. explain to you how they have handled this. They have a good deal of interesting experience with this small farm question. Most V.L.A. holdings are small holdings and I think V.L.A. representatives could give you a very interesting treatment of this problem, much better than I could.

Senator SMITH (*Kamloops*): Dr. Haviland, the retention of title under the V.L.A. is not entirely related to it being collateral or credit, is it? For instance, a V.L.A. settler has not the privilege of paying off his obligation and getting title at any time, has he?

Senator HIGGINS: Yes, sure he has.

Dr. HAVILAND: I think so, and later on, in any case, under the terms of repayment you will ultimately achieve complete title.

Senator SMITH (*Kamloops*): Yes, but there is a term of years during which he cannot acquire title.

Dr. HAVILAND: These are details I would not like to be dogmatic about. I think the V.L.A. could explain the details of this much better than I.

Senator LEONARD: In order to get the bonus that is given to him the settler has to stay a certain length of time. Is that not the situation under the V.L.A.?

Dr. HAVILAND: Yes. With respect to farm units under the V.L.A., the basic loan is up to \$6,000 at $3\frac{1}{2}$ per cent interest. The effective rate is less than $3\frac{1}{2}$ per cent because they do not have to repay the full \$6,000.

Senator LEONARD: But they have to stay a certain length of time before they can get the bonus in the form of a discount on the \$6,000.

Dr. HAVILAND: Yes, I think that is the case.

The CHAIRMAN: Does that satisfy you, Senator Smith?

Senator SMITH (*Kamloops*): I agree with the suggestion made by Dr. Haviland that we could get at the basis of this problem by having a representative from V.L.A. appear before the committee.

Senator WALL: There are many questions that one would like to ask at this time, Mr. Chairman, but I think it would be preferable to hear Professor Wright, who is going to follow the formulation of the general hypothesis of the discussion.

Senator HIGGINS: On page 12 of your brief you refer to co-operative farming. I understand that they started a system of co-operative farming in Belgium well over 50 years ago and they developed some very fine farms there. A number of people get together and buy a piece of machinery and use it one day on one farm and another day on another farm. I understand they have had tremendous success. Has that system been tried here at all?

Dr. HAVILAND: There has been some experience of co-operative farming in Saskatchewan. Some of them are co-operative to the extent they share the farm machinery but title to the land is held by the individual members of the co-operative. In other cases I believe everything except the homes themselves were pooled. I think this may be a point on which Mr. Stutt could elaborate.

Senator HIGGINS: Dr. Haviland, on the same page 12 of your brief you say, "A moderate level of price support may provide an adequate income guarantee for large-scale low-cost producers but be quite inadequate for small-scale high-cost farmers." What do you mean by price support? I am not a farmer and I do not know what is meant by the term "price support", as used here.

Dr. HAVILAND: One of the federal agricultural laws is called the Agricultural Stabilization Act. It enables price supports to be set as floor prices if the prices of products drop to that level. Then the producers are guaranteed they will not receive a price below that price support level.

Senator HIGGINS: In other words, under that act the Government guarantees a certain price?

Dr. HAVILAND: At a certain level.

Senator HIGGINS: Suppose that a farmer had to sell his product at a loss. Who would pay the difference?

Dr. HAVILAND: The general taxpayer.

The CHAIRMAN: The treasurer.

Senator BRADETTE: The taxpayer always pays in the end.

The CHAIRMAN: If there are no further questions of Dr. Haviland we will ask Professor Wright to come forward.

Senator CAMERON: Mr. Chairman, there is one very interesting development taking place in the west, and that is the setting up of service companies to service small farms. This is a completely different approach than the co-operative project. This is where enterprisers have gone out to provide cultivators and other farm machinery that is required for a lot of the small farms located around cities, as a rule. It cuts down the general overhead greatly.

The CHAIRMAN: I find that system starting to some extent in Saskatchewan too. There is certain contracting work that is done for farmers now.

Senator INMAN: In Prince Edward Island we have the co-operative idea with regard to farm machinery.

Professor P. A. Wright, Department of Agricultural Economics, Ontario Agricultural College, Guelph, Ontario: Mr. Chairman, Honourable senators: I grew up in the eastern townships of Quebec, where my family owned a small farm. Following graduation from school I did not stay on this farm. I was with the Royal Canadian Air Force for World War II, following which I took college studies at Macdonald College, at McGill University. Following studies there, I attended Michigan State College, attained the degree of Master of Science in agricultural economics, and completed preliminary requirements for a PhD degree in agriculture and economics. Following this, in 1953 I joined the Staff of the Ontario Agricultural College, where I am an associate professor specializing in farm management and production economics. That is my present capacity.

Mr. Chairman, Honourable senators: I would like to reiterate the statements, already expressed by Dr. Haviland and Dr. Andal, that this is a summary report.

The CHAIRMAN: That is right.

Professor WRIGHT: Therefore, it is condensed only to contain the highlights of our Workshop and discussions.

The Workshop theme is, "Small Farm Problem".

Definition of the Problem: The small farm, in contrast to the commercial farm, was defined as one where the resources in agricultural activity are inadequate to permit a scale of operation which could normally provide a standard of living satisfactory to the operator and his family.

It was recognized that this definition did not define in a statistical sense the term "standard of living", nor was "scale of operation" defined in a quantitative manner. It was realized that an income level necessary to provide a "standard of living satisfactory . . ." would vary greatly among types of farms, areas and regions. "Scale of operations" would similarly have to be defined in relation to specific areas and types of farms.

It was further recognized that small farms could be considered in terms of specific types as follows:

- (a) Residential—a small farm used mainly for residential purposes and on which there is little commercial agricultural activity.
- (b) Part time—a small farm (exclusive, of course, of residential farms), where less than two-thirds of the operator's time is spent on the farm and where more than 50 per cent of the total income is derived from off the farm.

- (c) Full time—a small farm where over 50 per cent of the total income is received from farming activities and where two-thirds or more of the operator's labour is employed on his farm.

Problem Areas: Having defined the major concepts of the small farm special consideration was given to the identification of the particular problems of the small farm in relation to the above classification.

- (a) Residential Farms: No specific economic problems were considered to exist for this type of farm. However, it was felt that major sociological and institutional problems may exist in areas where such farm units are numerous.
- (b) Part Time Small Farms: The economic problems peculiar to this type of farms were identified in terms of low incomes. This may in turn give rise to sociological problems. Income in this context refers to total income received from farm and non-farm employment. The low income problem may, therefore, derive from both agricultural and non-farm employment conditions.
- (c) Small Full Time Farms: Two major economic problems were identified with this type of farms. These problems were specified as (1) low farm income and (2) instability of farm incomes. It was felt that the major portion of the small farm problem derives from farms within this classification.

Three classes of farmers were identified as being small farm operators on a full time basis. Those are:

- (1) Farm operators who are desirous of overcoming their problems.
- (2) Semi-retired operators, who are unable to operate larger scale farms due to old age, poor health, and others who have sold parcels of land for residential or other purposes.
- (3) Those operators who are willing to accept a low standard of living and wish to remain on the farm as a way of life.

The Workshop also considered specific policies necessary to the solution of the small farm problem.

I would say as a sort of preface here, that you may find some things omitted, such as price supports, that Dr. Havilland was mentioning a few minutes ago. The Workshop, in discussing policies, considered in so far as possible, those which had particular application to the small farm problem, not with those which had application to farming as a whole.

In this consideration it was agreed that the following markets are of vital economic importance to this problem:

- (1) *The labour market* which plays an important role in the allocation of labour among various types of farm enterprises and between agriculture and other sectors of our economy.
- (2) *The capital market* which provides for the financing of both fixed assets and working capital.
- (3) *The product market* which encompasses the whole complex of situation and conditions under which agricultural products are marketed.
- (4) *The current input market* in which the farmer buys the inputs he uses in the production of farm products. Economic relationships between this market and the product market are of major importance.

These markets as well as all farm activity operate within a socio-economic framework which consists of:

- (1) *the structure of our society*, or the whole complex of social organizations, including religious organizations,

- (2) *the institutional framework*, which includes legal and governmental administration matters, at all levels of government,
- (3) *information services*, which include the whole sphere of extension activities of both public and private agencies,
- (4) *technical services*, as they are provided in the work of agencies concerned with the development and adoption of techniques and skills that may increase efficiency in agriculture.

The recommendation of specific policies was felt to require a statement of explicit objectives which are stated below:

- (1) the improvement of the levels of living of farm families on low production farms,
- (2) the improvement of the income position of farmers,
- (3) the consolidation or integration of small farms into larger and more productive units,
- (4) facilitating the transfer of part of the agricultural labour force from agriculture to other occupations,
- (5) the maintenance of the family farm,
- (6) the maintenance of the rural community, and
- (7) a better use of both human and natural resources.

It was felt that rational policies consistent with the explicit objectives as stated could be developed under the following three headings:

- (1) creation of an economic climate designed to facilitate means of securing off-farm income and employment,
- (2) better land use, and
- (3) more efficient levels of production on farms remaining in agriculture.

1) Off-farm income and employment—The low income problem in relation to small farms is implicit evidence of *surplus* human resources engaged in agriculture. In a capitalistic society groups of experts and legislators may be reluctant to revise or manipulate the social values of other people. However, the creation of an economic climate which induces self-adjustment may function toward the improved welfare of the largest number of people with a minimum of transitional friction. In this regard special recommendations are made as follows:

- (a) employment services must be improved. The Canada Department of Labour has a policy which meets only part of the problem. Special consideration should be given to functional reorganization to help low income farmers and their families to move out of agriculture;
- (b) Chambers of Commerce and Boards of Trade should assume some responsibility in the development of policies designed to provide employment to part-time farmers especially in small towns;
- (c) a system of community planning should assist in helping to move people out of agriculture;
- (d) vocational education, in industrial skills, should be provided in predominantly rural areas on the same lines as current vocational education in agriculture,
- (e) a system of resettlement compensation or other incentives could be devised to help farm families move to new areas, towns and cities;
- (f) unemployment insurance for farm workers would provide added income security;
- (g) governmental assistance in industrial decentralization could provide off-farm opportunities in rural areas.

In summary, a comprehensive program of rural re-development is essential to the creation of the necessary economic climate.

2) Better land use—We do not have a national land use policy in Canada. This gap should immediately be filled by the formulation of a comprehensive

action program. Land use committees should be set up at county, province or other area level. Community or area leaders would define problems in their areas and study alternative use of land and other natural resources.

From the work of such committees and special studies it would be possible to determine:

- (1) areas of continued agricultural potential,
- (2) water conservation, drainage and other development measures justified by economic conditions,
- (3) areas where movement out of agriculture is desirable,
- (4) areas to which non-agricultural activities might be attracted.

Federal enabling legislation, a Rural Planning and Development Act, would be the first step in this area. Federal-Provincial action programs could then be developed. Special care should be exercised to ensure that joint economic and physical land use programs are initiated.

3) Increased production efficiency on farms remaining in agriculture—There are four main approaches to the problem of increasing the efficiency of agricultural production and farm incomes:

- (a) the consolidation of farm land into economic units,
- (b) the application of modern methods and technology,
- (c) an improved balance in production, and
- (d) the handling of high labour and equipment costs on some co-operative basis.

Of primary importance in any attempt to implement these approaches is improvement in the capital market for farmers. While we do have certain national credit policies there is urgent need for a more meaningful credit policy developed with regard to the inherent characteristics of farming. Some of the desirable features are as follows:

- (1) Supervision of credit, to ensure both need, economic potential and proper use of public funds.
- (2) Flexibility with respect to size according to local or regional conditions and needs.
- (3) Flexibility as to repayment provisions to allow for inherent income fluctuations in agriculture.
- (4) Flexibility with regard to asset security to permit consolidation of debts under the one agency.

It was also felt that increased cooperation between Federal and Provincial agencies designed to improve extension and educational activities associated with both this and the two previous sections should be encouraged by all levels of government.

It was further recognized that the small farm problem is neither temporary nor transitional. Continual revision of suggested policies and their component parts would be necessary. However, the immediate problem is to move into an action program.

The Workshop also considered the socio-economic implications of the extensive development of small farms into fewer and/or larger farms operated as family farms. Among the sociological changes which might be expected are the following:

- (a) 1. A continuous trend towards the splitting of "the extended family" into nuclear units (father, mother and children) and a greater participation of family members in managerial decisions (an important change in the authority structure within the family). To sum up, there will be continuous atomization of family units and democratization of authority.
2. Father-son relations based on mutual business interests,

3. A continuous change in the inheritance system, that is the acquiring of property through legal and financial arrangements.
 4. A trend toward relations based on business interests, rather than being based on "pure" friendship or kinship ties that will be reflected especially in visiting and inter-cooperation patterns—with a weakening of group identification and group solidarity.
 5. The disappearance of the neighborhood as an important unit of social interaction.
 6. The establishment of associational patterns based on special interest groups that will cut across neighborhood and community boundaries.
- (b) A need for remodelling of religious organization, at least in a good many regions and the adoption of new structures and new policies of local governments that would have to be adapted to new territorial units and to new needs in the field of municipal and school administration and other agricultural organizations.
- Socio-economic consequences relating largely to intensification are:
- (a) Greatly expanded credit requirements, particularly in operating capital.
 - (b) Increased commercialization of farms with added vulnerability to price fluctuations. This, along with (a) will tend to produce vertical integration and particularly contracts with some element of security to the operator.
 - (c) Consequence (b) will make it necessary that marketing boards re-examine their positions, and consider bargaining on production contracts.
 - (d) The growth of highly specialized commercial producers will tend to further strengthening of commodity group interests, with consequent strains on general farm organizations.
 - (e) Farm supply co-operatives must re-examine their programs in regard to credit, patronage dividends and size and location of facilities.

In addition to the observations made so far the Workshop emphasized in particular the need for research in many of the areas associated with the small farm problem. It was felt that inadequate funds and, correspondingly, too few researchers are available to undertake the research required. Again, Federal-Provincial cooperation is deemed necessary to provide both the funds and the research personnel necessary to undertake the studies required. It was further emphasized that such researchers must be free to draw responsible conclusions from their studies and to make such information available to interested agencies.

The CHAIRMAN: Thank you Professor Wright. That is a well thought-out brief.

Senator BRADETTE: Mr. Chairman, will the witness enlarge on what is expressed on page 4, "creation of an economic climate designed to facilitate means of securing off-farm income and employment." What are your ideas on the pronouncement, Professor Wright?

Professor WRIGHT: These are more specifically treated in a full section, Off-farm income and employment, particularly such items as employment information, improvement in the efficiency with which present agencies serve these poorer agricultural agencies, information being the key point. Secondly, there would be this rural redevelopment, the encouragement to decentralization of industries in some of these areas to attract people off the farm, the whole idea being we want an economic climate that will *pull* people off the farm rather than try to use any other approach of *pushing* them off the farm. Vocational education is part of this, providing industrial skills for farm-workers if in fact they have to leave the area anyway. We also mention such things as perhaps

some re-settlement compensation if it was felt that certain areas were not suited to agricultural production, i.e., the payment of some form of compensation to move these people to better areas. Unemployment insurance was something else that was added to better, if possible, the income security available to farmers.

Senator McGRAND: There has evidently been a lot of field work done in compiling this workshop. In what portion of Canada was this work done? Was it done on a general coast to coast basis, or were certain areas or sections selected?

Prof. WRIGHT: Perhaps this applies more to the information given by Dr. Haviland.

Dr. HAVILAND: Senator, there was not a great deal of field work done for this workshop. However, there were members at the workshop from seven different provinces, and they brought with them a considerable wealth of experience, and the results of studies that had been done over several years in the past. I might also say that the Economic Division of the Department of Agriculture provided a good deal of very useful statistics to the workshop participants, but as for basing the workshop on an elaborate field work, especially for the conference, that was not the case.

Senator TAYLOR (*Westmorland*): Could you tell us off hand from what provinces the personnel came?

Prof. WRIGHT: Speaking from memory, they include Prince Edward Island, Nova Scotia, Quebec, Ontario, Saskatchewan—

Senator BUCHANAN: Did you have anybody from Alberta?

Prof. WRIGHT: I don't think so. I cannot recall from memory the other provinces.

Senator HIGGINS: What is meant by the term "vertical integration"?

Prof. WRIGHT: Vertical integration as used here refers to the control of two or more steps in the ultimate chain of production from the farm through to the consumer by one decision making agency. That is to say, a farmer who keeps cows, produces milk and sells milk would be vertically integrated; at the same time, let us say a meat packing industry might contract with the farmer to sell him feed to raise certain kinds of livestock, process the meat, and in turn sell it to the retail trade. This would be vertically integrated.

Senator BRADETTE: The professor comes from Guelph, and he knows that in his area, right through to Niagara Falls and in other parts of Ontario, industry is taking the best land for its purposes. Dr. Haviland comes from North Bay where the land is very rocky and the farms are small. Can any recommendation be made to the provincial or federal authorities to prevent the best land for agriculture being used by industries? I suppose there is no ready solution for it?

I recall that Mr. Henry, a former premier of the province of Ontario, sold his farm for something like \$1 million; that farm had the finest soil available in the province of Ontario, but it was taken out of agricultural production. Is there anything to be done to correct that situation?

Prof. WRIGHT: We are certainly aware of and concerned with this problem, but in Ontario at least we are faced with the fact also that the farmland is going out of agriculture in other areas than around cities. So, in terms of ultimate agricultural production the problem may not be as great as it would seem.

We do hesitate to make specific recommendations that certain land should be kept in agriculture—that is, that we should dictate to people that certain areas must stay in agriculture. I don't think we as professional agricultural economists would make a recommendation of that kind.

Senator BRADETTE: I realize that. I can give another example—Professor Haviland will know about this—a good many contractors are glad to build in North Bay because the foundations can be placed on solid rock, with no trouble with water or anything of that kind. But the big corporations apparently want to have good level agricultural land instead of the rocky land. With modern equipment the day will come when it will be just as easy to build on rocky land as on low level land. Some day the Government will have to interfere in this situation.

The CHAIRMAN: With regard to the question of moving or assisting farmers to leave their farms and become labourers, have you found in any of your surveys that there are a great many people who live adjacent to cities or towns who want to leave their farms if they could get a good sale for them?

Prof. WRIGHT: Certainly we see this in the area in which I am located, where there is a continual movement of people from the farms to work in the cities. This, however, is associated with low income on the farm; they want to get off the farms for income reasons.

The CHAIRMAN: What I had in mind was, are there many who are forced to stay on the farms but would prefer to move if they could get a decent sale for their small holding?

Prof. WRIGHT: I don't think there are many in this position in the industrialized areas.

Senator GOLDING: Mr. Chairman, in the suggestions made with reference to off-farm income and employment, the theories expressed are all right, but to put them into practice would be quite a different thing. With respect to the proposed system of community planning to help the people move out of agriculture and into industry, the fact is that we now have thousands of men in towns and cities who depend on industry for their livelihood, and they are unemployed and collecting unemployment insurance because there is no work for them. No matter how good one's intentions are in this respect, how are you going to move the people from the small farms into industrial areas which apparently are already overcrowded? It is all right to express a theory, but to put it into effect is asking quite a lot.

Dr. HAVILAND: Might I rise at this point? Mr. Senator, what you say is perfectly true. This kind of adjustment takes place easiest when there is general prosperity in the country. At the present time there is unemployment, but we are speaking of things here which would apply for many years into the future; and we hope that the present unemployment will not last that long, that it will not be a continuing thing. The kind of adjustments that are envisaged take place much easier under conditions of general economic prosperity.

Senator GOLDING: It is good to wish for that, but one recalls that, even during the war, when one would think that every person's services could be utilized, there was unemployment. So that it is a condition one has to face.

Senator TAYLOR (*Westmorland*): I was wondering whether some way or other could be devised to use a phrase different from "vertical integration". Not one person in a thousand knows what that means.

The CHAIRMAN: I think that question was asked, here.

Senator TAYLOR (*Westmorland*): The question was asked, what it meant. I was just asking whether a different phrase could be established that would give a clear understanding of what it actually means.

The CHAIRMAN: I see,—for the general public?

Senator TAYLOR (*Westmorland*): Yes. I was home two weeks ago, and I was asked by six farmers, who had been reading about "vertical integration", what it was.

Professor WRIGHT: I am not surprised at any lack of understanding, but it is a term which has international acceptance in the context in which it was used. I might say that we in our province are very busily engaged explaining to farmers what it means and what it involves. I do not feel that we will get a change of name.

Senator WALL: I wonder if I might pursue the statement I made earlier, that this thing is just bristling with all kinds of questions and connotations. I must confess that there is a tremendous amount of meat in both of these briefs. Questions are being raised by these technical experts which have an implication on matters of policy and matters to be decided between the federal and provincial jurisdictions; and in the brief space of time that we have had to look at and listen to these we cannot grasp all the wealth of experience that they contain. I notice, however, running through most of the presentations is a call for more information, more research. In other words, we do not know what the problem is because—if I could specificate—I notice that Dr. Haviland, at page 5, says that the class of farm which comprises the hard core of the small farm problem is the third class, small farms on the fringes of settlement,—those that have too little land,—I notice that—too poor soils, too rough terrain, or are too wooded. If we pause to reflect on the basic meaning of this, the statements of Professor Wright come into focus, and they are those which are connected with the policy of self-adjustments, or inducements to self-adjustments, and that is connected with various policy considerations that are being advanced, like the lending agency referred to on page 11. Doctor Haviland mentions an agency which could “release such captive farmers” that we are worried about. But of course, one says, a lending agency at what level? Is it to be on the provincial level or the federal level? A second major problem of the small farm, he says, is poor management. Who is going to handle that problem of poor management, the federal or the provincial Governments? What I am getting at is the necessity of us collating all this information and asking ourselves a lot of questions concerning even these two briefs which are so packed with material.

The CHAIRMAN: It seems almost possible that the Senate should form a “workshop” and study this thing themselves.

Senator WALL: Yes; and in a spirit of mischief I was going to say that maybe we could meet some Wednesday night to try this out. I understand there was a motion to that effect which was moved and duly accepted. Maybe we should have a working section.

Senator INMAN: May I ask a question? I was wondering whether we could have any light on what seems to be the greatest problem in Prince Edward Island. We do not have too many farms that are not productive.

The CHAIRMAN: The marketing problem is the one there?

Senator INMAN: Well, it is one; but I have known a great number of our farmers who are quite capable of having their children educated and sent away for that purpose. They seem to make a good living. Yet, on the next farm, with practically the same soil, the farmer is doing hardly anything. The problem seems to be one apart from marketing.

Senator BRADETTE: All the young people fly to the cities.

Professor WRIGHT: I am not aware of the problem as it exists in Prince Edward Island.

The CHAIRMAN: I think we should get that information later from the provincial Department of Agriculture. They are sending down their Minister of Agriculture. We shall be getting a brief from them, and the questions could be asked and answered then.

Senator McDONALD: I would like to emphasize the importance of farm management while Professor Wright is here. I understand he is associate professor of Farm Management at Ontario Agricultural College. Is that so?

Professor WRIGHT: Yes.

Senator McDONALD: I think that one of the most important aspects of agricultural education today, to a great many farmers—perhaps I should make it even stronger, to most farmers—relates to farm management, and I have been in hopes that the agricultural educational institutes would put more emphasis on this subject. I am wondering if there is a tendency in that regard in the last several years, to really give our institution workers—for instance, those who are going to graduate from their colleges as prospective institutional workers—to follow them up and give them as much as you can on farm management, so that they can be of the greatest possible service to our farmers. I am sure that in Nova Scotia our difficulty is to get a sufficient number of men partly trained in farm management. How are you getting on at Ontario Agricultural College?

Professor WRIGHT: We feel that at the Ontario Agricultural College we are improving this situation year by year. All students going out of our college now, who will be working with farmers in any capacity, get training in farm management.

Senator McDONALD: Is much time given to farm management instruction?

Professor WRIGHT: Not as much as we would like. In courses other than agricultural economics they get only five hours a week for one term in farm management. We would like more but even at that we have improved, we feel, the quality and the quantity of the training in the past few years. We do regret that in some schools it is not taught to the extent we feel it should be.

Senator WALL: I wonder if I may ask Dr. Haviland a question? You mentioned in your brief a workshop scheme comparing farm and non-farm incomes. Has any consideration been given to improving the validity of these measures? I am saying that because so often we talk about farm income or net farm income, and then they make a comparison of the per capita farm income with the per capita urban income. What bothers me is that into farm income statistics we are now beginning to include a lot of non-farm income that should be subtracted from the urban income and added to farm income. Are the measuring sticks becoming more exact as we are going on?

Dr. HAVILAND: Thank you for asking that question, Senator Wall. This workshop on the comparison of farm and non-farm incomes was held three years ago, and it was precisely this problem to which it addressed itself. I can say I believe it has already begun to bear some promising fruit. The farm income and expenditure survey which is in progress by the Dominion Bureau of Statistics has, I am told by those who are directing it, been influenced by the findings and work and thinking that went into this first or our workshops. As I mentioned earlier, I am going to distribute for your reference the proceedings of that workshop. Many questions arose. One was mentioned today, and that is whether in farm income we should include all of the 600,000 odd farms or whether it is really unfair to include a whole lot of farms that are really part-time or rural residences.

Another question is that concerning what group in the non-farm part of the economy should be compared with the farm group. What is the proper and fair kind of comparison to make? Is it fair to just compare all farms with all the rest or should you compare farmers with wage earners, or farmers with small grocery store owners, or what? You will find that these problems were at least tackled in that workshop.

Senator SMITH (*Kamloops*): I would like to ask Professor Wright a question with regard to vertical integration. Apparently from what you read there is a lot of fear as to what is going to happen to the agricultural industry as a result of the inroads made by vertical integration. Is that likely to produce a class of farmers such as is now referred to as a share cropper?

Prof. WRIGHT: I will be expressing an opinion here when I say I do not think this will develop under our system. We already have a good class of farmer capable of independent decision, and I think what we will see developing here will be collective bargaining for contracts between farm groups and non-farm groups rather than a lot of individual bargaining as has been witnessed up to the present. So I think we will see the development of strong agricultural bargaining groups rather than individuals placed in this position.

Senator BOIS: Is it true that in Ontario the broiler market is supplied to the extent of 60 per cent of its capacity by broilers used under one of these schemes?

Prof. WRIGHT: The current estimate, Senator Bois, is 90 per cent.

Senator BOIS: In Ontario?

Prof. WRIGHT: Yes.

Senator WALL: Prof. Wright, before I ask you another question which will clarify two points for me, I want to thank you very much for the basic concepts which are contained, for example, in page four of your brief, dealing with the three objectives of what you would call rational policies in a broad framework. However, I want to pin you down to a clarification of two things, if you will bear with me. On page 5 you say we do not have a national land use policy in Canada. Would you explain to me what was the concept of a national land use policy as discussed by the people in the workshop? Would you then follow that up by telling me what was the concept behind the Rural Planning and Development Act, which would be the basis of enabling legislation at the federal level? In other words, what was in the minds of these people when they talked about these two basic concepts?

Prof. WRIGHT: With respect to the first part of your question, Senator Wall, the concept here was that the land use policy in Canada has been on an area or regional basis rather than having an overall policy with respect to management of the land resources of the country.

Senator WALL: But there is a jurisdictional framework into which we would have to fit that.

Prof. WRIGHT: This was recognized but it was not felt that anything which would benefit the country as a whole should be disregarded solely because of this jurisdiction.

Senator WALL: Within a federal framework are there any other countries which have struck out a broad national land use policy?

Prof. WRIGHT: The United States has quite a comprehensive land use policy.

Senator BRADETTE: It is true there is quite a problem with respect to small farms. There is also a crisis in the farming industry in general. In northern Ontario where I live I know that the people in the town of Timmins cannot get their full milk supply from the farmers in the surrounding district. This is true in spite of the fact that we live in the famous northern Ontario clay belt. You cannot keep young people on the farm, no matter how prosperous the farm is. So it is a terrific problem. These young men gravitate to the mining sections and to the big newsprint mills at Kapuskasing, Smooth Rock Falls and Iroquois Falls. In a way you cannot blame these young people. The Government has inaugurated a policy of bringing in European farmers as immigrants to settle on our land, but again that has not worked. A few years ago when Mr. George Drew was Premier of Ontario, the Ontario Government brought in such people, and later on it brought in a number of Dutch settlers

and not a single one stayed on the land. They were good farmers too. So this is a terrific situation and you cannot get away from it. Young men and women will not stay on the farm.

The CHAIRMAN: May I ask if milk production in Canada as a whole is greater or less today?

Senator TAYLOR (*Westmorland*): It is up.

The CHAIRMAN: So that while an area like Timmins is going down, the overall production of milk in the Dominion is increasing. Any other questions?

Senator WALL: I want to come back to ask who would formulate this national land use programme. How did they conceive this formulae, as a federal-provincial endeavour, or how?

Professor WRIGHT: You have suggested the way in which the participants of the workshop were thinking, and of course agricultural groups would assist in their recommendations as to how they should be organized—the means of achieving it; but you are correct, it was seen as a federal-provincial co-operative endeavour.

Senator WALL: By the Government?

Professor WRIGHT: By Government. We recognize that we may only recommend these things.

Senator WALL: I would like to pin you down to the second concept—the Rural Planning and Development Act.

Professor WRIGHT: This is really part of this larger concept of decentralization of industry and limitations on the development of small and uneconomic holdings; selling of small bits and parcels of land which develop rural slums; organization of school districts. The Rural Planning and Development Act encompasses all these things.

Senator WALL: Yes, but the concept has not been ferreted down or crystallized yet, it is just in a state of deep flux.

The CHAIRMAN: Senator Wall, is it not in the same way as in the city of Regina, where there is a rural planning commission? You cannot do certain things outside of the city. In other words, this planning commission says whether you can set down an industry or small farm in an area. You must get permission from this commission.

Senator BUCHANAN: Does this, though, involve an integration between small farms and industry?

Prof. WRIGHT: Yes, it does.

Senator BUCHANAN: I don't know if we have horizontal or vertical integration, but it has to be integrated, and that is one of the great problems in order to get them to co-operate in the way of additional work that the farmer can provide.

Prof. WRIGHT: Senator, I might add that we did not in the thinking of the group, as I recall it, envisage any immediate startling improvements as a result of such recommendations. I think that instead what we were feeling was that under the present institutional arrangement, if you like, there are really no means of doing these things, there is no one spearheading the type of action of the kind needed. So that although progress might be slow it still requires a basis.

Senator WALL: When I am asking about this Rural Planning Development Act on a conceptual basis, and actually the formulae principle, if I may put it this way, I am asking as a matter of deep interest, because it says that the group was regarded as an initial stage, as something that would be prompting the provincial and regional bodies to do something; and therefore if we could

find out more about that concept—what they were thinking of—was it a credit, was it a loan agency, what were they thinking of, I believe it would be of assistance, because evidently it is a project of a great deal of soul-searching on behalf of the people living with that problem all the time; so I am asking because I am interested, and if we could pin it down more finally, or some day maybe somebody could pin it down, it would be very helpful.

Prof. WRIGHT: Perhaps Dr. Andal could confirm this, but I believe at one of your earlier meetings the matter of rural planning and development was brought up in the United States with reference to certain material. I do not know myself what that material is.

Senator WALL: Let me go quickly to the point. Is there any country, say Australia, the United States, or somebody that has brought in a rural planning and development act to serve as a broad basis for this kind of new development?

Senator BUCHANAN: If so, with what success?

Senator WALL: That is right. Or do we have to synthesize it ourselves with our own Canadian creativeness?

Dr. ANDAL: There has been in the United States a rural development programme which is an attempt to bring the various groups and communities together to work out these problems. The problems in Canada, and jurisdictions in Canada, would be somewhat different.

Senator WALL: But, Doctor, actually the concept behind this Rural Planning Development Act would be a kind of a directional and incentive act applicable to all regions.

Senator BRADETTE: It would not apply to the United States, I think.

Dr. ANDAL: The workshop was, I think, primarily concerned with the types of things that should be done, such as credit, vocational training, and that sort of thing. I think that the working out of this might be more within the competence of this committee than of the group of the workshop.

Senator TAYLOR (Westmorland): Mr. Chairman, before we adjourn, may I say that this subject of land use has been given considerable publicity and has aroused a good deal of interest, arising from the discussions here. Summarizing the whole thing, does it not come down to two basic factors to act upon? One is land use, and in my opinion, from my knowledge of agriculture, is this, that if we had first a National Land Use Act of sufficient flexibility that it could be applied to any section of Canada, followed by complementary legislation by the provinces, then the provinces and the national government could work together on plans of land use as applied to the provinces; then along with it, probably at the same time, some means of financing that would help these small farms—and I know a lot of small farmers who are good farmers but conditions have been such over the last seven or eight years that they are just making a living and that is about all; they haven't any capital to go out and enlarge their properties, and they are getting discouraged, and will continue to be discouraged, unless something is done to permit those people to get into a position where they can get into economic production on the scale we are faced with today by reason of mechanization and the rest of it.

Mr. Chairman, I think these are the two factors we should give immediate consideration to.

The CHAIRMAN: I agree with you Senator Taylor.

Senator TAYLOR: Mr. Chairman, I wish to move a vote of thanks to Dr. Haviland, Professor Wright and Dr. Andal for the splendid presentations they made to the committee this morning.

The CHAIRMAN: That is very acceptable, Senator Taylor.

The committee adjourned.

APPENDIX B

A SELECTED LIST OF PUBLICATIONS, ARTICLES AND TABLES
Relating to
THE SMALL FARM PROBLEM

Based on Studies Made by
ECONOMICS DIVISION, CANADA DEPARTMENT OF AGRICULTURE
(Prepared for The Special Committee of the Senate on Land Use in Canada)

March 19, 1959

General

1. List of Tables (Numbers 1-21) re an Economic Classification of Farms.
2. Agricultural Statistics by Type of Farming Areas—Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick.
3. Agricultural Statistics by Type of Farming Areas—Quebec.
4. Agricultural Statistics by Type of Farming Areas—Ontario.
5. Agricultural Statistics by Type of Farming Areas—Manitoba.
6. Agricultural Statistics by Type of Farming Areas—Saskatchewan.
7. Agricultural Statistics by Type of Farming Areas—Alberta.
8. Agricultural Statistics by Type of Farming Areas—British Columbia.
9. The Capital Structure of Canadian Agriculture. *Economic Annalist*. June 1957.
10. The Capital Structure of Canadian Agriculture, Part II. *Economic Annalist*. October 1957.

Atlantic Provinces

11. Farm Organization Study—Annapolis Valley, Nova Scotia. 1948.
12. Reclamation of the Marsh Lands of Nova Scotia. *Economic Annalist*. February 1951.
13. Utilization of Dykeland in the Maritime Provinces, 1949-50. *Economic Annalist*. June 1951.
14. Trends in Rural Population in Canada with Particular Reference to the Maritime Provinces. *Economic Annalist*. August 1951.
15. Changes in Farm Organization in Nova Scotia. *Economic Annalist*. August 1956.
16. Atlantic Provinces Agriculture, August 1957.

Central Provinces

17. Business Analysis of 70 Selected Farms in the Eastern Townships of Quebec, 1951-52. *Economic Annalist*. December 1954.
18. Cost of Producing Crops in the Eastern Townships of Quebec, 1951 and 1953. *Economic Annalist*. December 1955.
19. Farm Family Living in Nicolet County, Quebec, 1947-48.
20. Land Use in Durham County, Ontario. 1947.
21. Farming in the Rainy River District of Ontario. *Economic Annalist*. October 1952.
22. Changes in Agriculture in Dundas County, Ontario. 1952.
23. Land Use in Holland Township, Grey County, Ontario. *Economic Annalist*. October 1953.
24. Woodlots on Ontario Farms, October 1953.
25. Farm Family Living in Lanark County, Ontario. 1947-48.

Prairie Provinces

26. Farm Business in the Gilbert Plains and Sifton Areas of Manitoba. January 1953.
27. Farming in the Armstrong District of Manitoba. March 1953.
28. Some Reasons for the Persistence of Small Farms. *Economic Annalist*. October 1956.
29. An Economic Study of Land Settlement in Representative Pioneer Areas of Northern Saskatchewan. 1945.
30. A Study of the Farm Business in the Carlyle-Moosomin Area of South-east Saskatchewan, 1948.
31. The Economic Aspects of Land Use in Saskatchewan. *Economic Annalist*. October 1949.
32. The Establishment of Economic Farm Units in Northwestern Saskatchewan with Particular Reference to Low-Productivity Land. 1952.
33. Progress of Farmers in an Area Adjacent to the Saskatchewan-Carrot River Triangle. November 1954.
34. Farms on Heavy Textured Soils in the Park Area of Northeastern Saskatchewan. *Economic Annalist*. October 1956.
35. Farm Family Living in the Prairie Provinces. 1947.
36. Changes in Farm Family Living in Three Areas of the Prairie Provinces, from 1942-43 to 1947.
37. Farm Family Living in Southeastern Saskatchewan. 1947-48.
38. The Farm Business in Northern Alberta. *Economic Annalist*. February 1955.
39. Changes in Farm Organization in Alberta. *Economic Annalist*. August 1956.
40. Proposed Changes in Farming Enterprises, 1953.
41. The Exchange of Farming Information, 1953.

British Columbia

42. A Study of Land Settlement in the Prince George-Smithers Area, B.C. 1947.
43. Farm Organization in the Creston Area of B.C. 1947.
44. Farm Organization in the Northern Okanagan Valley, B.C. November 1952.
45. A Study of Apple Production in the Okanagan Valley of B.C. 1952.
46. Dairy Farm Study of Vancouver Island, 1954-55.
47. Changes in Farm Organization in British Columbia. *Economic Annalist*. August 1956.

2nd Session, 24th Parliament, 1959

THE SENATE OF CANADA



PROCEEDINGS

OF THE

SPECIAL COMMITTEE OF THE SENATE

ON

LAND USE IN CANADA

No. 4

THURSDAY, APRIL 23, 1959

The Honourable Arthur M. Pearson, Chairman

WITNESS:

The Honourable Eugene Cullen, Minister of Agriculture for
Prince Edward Island

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Power
Basha	Horner	Smith (<i>Kamloops</i>)
Bois	Inman	Stambaugh
Boucher	Leger	Taylor (<i>Norfolk</i>)
Bradette	Leonard	Taylor (<i>Westmorland</i>)
Buchanan	MacDonald	Turgeon
Cameron	McDonald	Vaillancourt
Crerar	McGrand	Wall
Emerson	Methot	White—31.
Gladstone	Molson	
Golding	Pearson	

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator MacDonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—

Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

THURSDAY, April 23, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 10.30 a.m.

Present: The Honourable Senators: Pearson, *Chairman*; Basha, Bois, Boucher, Bradette, Gladstone, Higgins, Horner, Inman, MacDonald, McDonald, McGrand and Wall—13.

The Clerk of the Committee read a report of the Steering Committee dated Tuesday, April 21, 1959.

The Committee proceeded to the further consideration of the order of reference of Tuesday, February 17, 1959.

The Honourable Eugene Cullen, Minister of Agriculture for Prince Edward Island, presented a brief and was questioned.

At 12.30 p.m. the Committee adjourned to the call of the Chairman; tentatively set for Wednesday, April 29, 1959 at 8.00 p.m.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE
SPECIAL COMMITTEE ON LAND USE IN CANADA
EVIDENCE

OTTAWA, Thursday, April 23, 1959.

The Special Committee on land use in Canada met this day at 10.30 a.m. Senator Arthur M. Pearson in the Chair.

The CHAIRMAN: Honourable senators, we have some business to discuss before we hear the Honourable Mr. Cullen from Prince Edward Island, our witness for today.

The Steering Committee called a special meeting at the beginning of the week at which was discussed matters of procedures with respect to subsequent meetings. I would ask Mr. MacDonald to read the minutes of that meeting.

The Clerk of the Committee:

"The STEERING COMMITTEE of the Special Committee on Land Use met this day at 2.00 p.m.

Present: The Honourable Senators Basha, McDonald, Pearson, Power and Wall.—5.

"The Chairman was heard with respect to the witnesses and evidence available during the balance of the present session.

Following discussion, it was RESOLVED as follows:—

1. That the invitation to visit Harrington Farm be accepted, on an informal basis.

2. That the plan for sending groups of two or three members to various provinces be not now adopted.

3. That consideration be given at the next session to having the Committee, or a large portion thereof, visit localities for periods lengthy enough to hear expert local opinion.

4. That the opinion of provincial ministers be sought as to the advisability of the Committee visiting areas within their jurisdiction.

(By Steering Committee, in camera).

5. That in addition to meeting on Thursdays, the Committee meet Wednesday evenings.

At 2.45 p.m. the Steering Committee adjourned.

Attest.

(Sgd) John A. Hinds
Assistant Chief Clerk of Committees."

The CHAIRMAN: Honourable senators, with respect to the first item, you will recall that Mr. Berne Johnson of the International Paper Company extended an invitation to us to visit their forestry scheme at Harrington. He suggested the visit take place in May of this year, but we have not as yet accepted the

invitation. The suggestion of the Steering Committee is that it be on an informal basis, with the idea that we are not asking the Senate to give us permission to travel from place to place.

Senator McDONALD (*Kings*): I understand, Mr. Chairman, the International Paper Company would provide a bus to pick us up and return us, and probably give us a lunch, so we would not need extra money to meet expenses.

Senator BRADETTE: What was the objection to our visiting different parts of the country under the guidance of the committee?

The CHAIRMAN: In this we would not have to ask for an appropriation to cover the cost of travel.

Senator HORNER: For that particular trip.

The CHAIRMAN: For that particular trip. Would it be the wish of the committee that the Chairman be empowered to get in touch with Mr. Johnson and make arrangements?

Senator McDONALD (*Kings*): I so move.

Senator MACDONALD (*Queens*): Seconded.

The CHAIRMAN: Carried.

With respect to point No. 2, it is now suggested that we adopt the plan for sending groups of two or three members to various provinces. At a previous meeting it was suggested that four, five or more members should visit problem areas and hold hearings at various points. The Steering Committee felt that because of the pressure of work at the present session we should adopt this proposal now put forward.

Senator McDONALD (*Kings*): Furthermore, Mr. Chairman, the ministers and some of the representatives from some of the provinces are coming here and we could hear what they have to say, and their reaction to our visiting their province.

Senator BRADETTE: I move the adoption of this paragraph.

The CHAIRMAN: Carried.

No. 3: That consideration be given at the next session to having the committee, or a large portion thereof, visit localities for periods lengthy enough to hear local opinion.

Senator MACDONALD (*Queens*): Perhaps, Mr. Chairman, that could be left until the next session of Parliament. I would so move.

Senator McDONALD (*Kings*): I second it.

The CHAIRMAN: Carried.

No. 4: That the opinion of the provincial ministers be sought as to the advisability of the committee visiting areas within their jurisdiction.

The idea of the Steering Committee was that we would ask the provincial representatives their opinion as to the value of the committee going to their provinces and holding hearings. Is it your wish that that be left over to the next session?

Senator MACDONALD (*Queens*): I would so move.

The CHAIRMAN: Carried.

No. 5: That in addition to meeting on Thursdays, the committee meet Wednesday evenings.

That matter was left in the hands of the Steering Committee to decide what should be done. As we have two or three briefs in line to be heard, time will not permit us to complete our hearings if we meet only on Thursday. Some extra meetings will have to be held to complete our business.

Senator BRADETTE: While the Senate is perhaps not as busy as the House of Commons, the members here follow somewhat their line of behaviour, and

have Wednesday night free. However, I am sure we could make a point to attend meetings scheduled for that evening.

I move the adoption of the proposal.

The CHAIRMAN: Carried.

Ladies and gentlemen, we will now carry on with the main part of our meeting here today. We have with us this morning Hon. Eugene Cullen, Minister of Agriculture in the Prince Edward Island Government. Mr. Cullen, would you give the members a brief outline.

Hon. EUGENE CULLEN (*Minister of Agriculture, Prince Edward Island*): Mr. Chairman, ladies and gentlemen. I was born on the Island and a native son I therefore am. I farmed up to 1946. I established a pasteurized fluid milk plant in that year and I still carry on that business with my duties as Minister of Agriculture. I lived in Charlottetown for the last 10 years or so. And that is about all I have to say, Mr. Chairman. I am not noted for anything in particular. I have been a member of the legislature since 1944.

Senator MACDONALD (*Queens*): You might as well tell the whole story.

Hon. Mr. CULLEN: I do not think there is anything much else to tell. I have had a very uneventful life aside from the fact that I got into politics.

Senator MACDONALD (*Queens*): Mr. Chairman, he and I were political opponents in election campaigns.

Senator BRADETTE: Do you hold that against him, Senator MacDonald?

Senator MACDONALD (*Queens*): No.

Hon. Mr. CULLEN: Mr. Chairman, I have no degrees, either honorary or otherwise, or anything notable to tell the committee. However, I would love to say that I am noted for this and that.

Senator HORNER: You were born on the farm?

Hon. Mr. CULLEN: Yes.

The CHAIRMAN: I think, that Mr. Cullen brings with him a very good recommendation.

Hon. Mr. CULLEN: Thank you, Mr. Chairman.

Mr. Chairman, and honourable senators. Prince Edward Island is part of what is known, historically and geologically, as the Acadian Region, which includes New Brunswick and Nova Scotia. The Acadian Region, in turn, comprises the Canadian section of the major physiographic region known as the Atlantic Coastal Plain of North America.

The CHAIRMAN: Is that a particular type of soil, the Acadian Region?

Hon. Mr. CULLEN: No, I would not say it is a particular type of soil, it is a geological formation more than it has to do with soil.

The Island has the broad aspect of a low plateau. It is almost trisected by deep bays and a tidal river, the Hillsboro River, to form three small islands. The coast line, approximately 1,000 miles in extent, is indented by numerous bays and the outlets of short tidal rivers and streams. It is characterized, particularly along the south coast, by many long headlands and shore cliffs of red sandstone capped by a reddish overburden of till. Another feature of the coastline, particularly along the north coast is to be seen in the long, narrow stretches of sand dunes. Unlike the other two Maritime Provinces, New Brunswick and Nova Scotia, there are no areas of dyke-land or reclaimed salt marsh in Prince Edward Island, although there are narrow stretches of salt marsh along estuaries of some of the tidal rivers.

I might say, honourable senators, that when we make the statement for instance that there are no areas of dike lands in the province that statement can be disputed. But they are so small that we can safely make the statement that there are none there, relatively speaking.

Senator McDONALD (*Kings*): Have you any areas that have been diked over?

Hon. Mr. CULLEN: We have one small area in the vicinity of Queens county.

Senator McDONALD (*Kings*): Are there any particular areas that give any difficulty in farming?

Hon. Mr. CULLEN: As a matter of fact, a little trouble is caused by the fact that there is so much old wood in that peat land that was reclaimed so that it has not been practical to clear it for extensive farming. There is nothing impossible I know but this particular land is chockful of pine or hemlock that seems to harden in mud and water and once you disturb the topsoil and try to plow it you get into these sticks and to clear a place even 20 feet square would require five or six men perhaps two days on account of the difficulties encountered with these sticks. I think this area was cleared and there was considerable hay growing on the few hundred acres that were reclaimed. It is partly used for pasture now because it was too soft to farm, but since the water has been drained off part of it has been used for pasture. But it is not practical to cultivate it, although I say nothing is impossible.

The surface relief of Prince Edward Island generally, is that of a flat to moderately undulating plain. A large part of the Island, from two-thirds to three-quarters, does not exceed 150 feet above sea level. The undulations are relatively long, low and wide. In some areas they assume the character of long, low ridges. There are two sections of the province where the elevations are sufficiently high to give a low hill type of topography. The largest area is found in the centre of the province, extending from near DeSable and Argyle Shore in the south to New London Bay in the north and from the Queen's-Prince county boundary in the west to a line running north and south through New Glasgow and Clyde River in the east. The elevations in this area rise to 400 or 500 feet above sea level. A smaller area of rolling land is located in the Culloden-Caledonian sectors of Queen's and King's counties. The valleys in these more rugged areas extend more or less diagonally across the terrain, following in a general way the strike of the rock formations.

When the British acquired control of Prince Edward Island almost the first thing they did was to order a survey of the province. The survey, completed by Samuel Holland, divided the province into sixty-seven townships. Later these townships were granted to persons who had performed services of one kind or another for the crown. Many of these were soldiers, and a great many of them never did see Prince Edward Island, but their land grant on the Island was controlled by an agent. Some of the land owners came to Prince Edward Island and took possession of their lands, and many of these resident landlords did a great deal to promote the settlement and development of the colony.

The CHAIRMAN: Was there any special size to these land grants?

Hon. Mr. CULLEN: They varied in size.

Senator HORNER: I suppose some of the families presently living in Prince Edward Island are descendants of those people who received land?

Hon. Mr. CULLEN: That is true. The second last Minister of Agriculture before me, Mr. Stewart, was a descendant of one of the original land grantees.

On the other hand, there was much dissatisfaction with the majority of the landlords, and there was a continual agitation for land reform until in 1873 Prince Edward Island became a province of Canada. Early in 1875 the Government of the province borrowed money from the Dominion of Canada to purchase the land controlled by the landlords. The long struggle for the right to own land thus ended in a victory for the tenants, and in a very short time practically every acre of Prince Edward Island was privately owned.

This, I think, is important in that I would say at the turn of the century practically every acre of Prince Edward Island land was privately owned. Some of this has reverted to the Crown, but only a small percentage of it. I

think Prince Edward Island is unique among the other provinces of Canada in that respect that most other provinces have a considerable percentage of their land as Crown land. But practically the whole of Prince Edward Island is privately owned.

In the last years of the 19th century the need for a crop which could be turned into cash forced Island farmers to grow oats for sale because this was the only crop which found a ready market in the Maritime Provinces. Commercial fertilizers were not used at that time and this oat growing reduced many farms in the more sandy areas of the province to a condition where they could not grow enough of anything to support a farmer and his family.

In the 1890's the first cheese factory was established in the province, and by 1900 there were in Prince Edward Island in the vicinity of forty cheese factories. This development of the dairy industry relieved the situation to a great extent. The problem now was to grow sufficient forage for the dairy cattle on land that had been impoverished by selling oats and not putting anything back into the land.

In 1912 the silver fox boom hit Prince Edward Island, and for many years this industry provided supplementary income on many farms where the acreage was not sufficient to provide a living from the land alone.

About 1922 the growing of seed potatoes with fertilizer became a factor in the income of Island farmers. Potatoes had been grown in Prince Edward Island from the first settlement, but the only market available up to this time was provided by sailing vessels which loaded at ports all around the shores of the province in the fall of the year. The production of the crop was at the mercy of the weather because there was no control for blight and pests of various kinds. The potato industry has made great strides since 1922, and to-day with the aid of scientific growing methods, and scientific controls for all the ills that follow the potato crop, Island potato growers have more than trebled the average production per acre achieved in the early part of the century.

The CHAIRMAN: What would be the average yield now?

Hon. Mr. CULLEN: The average yield in 1957, the revised figure, was 315 bushels to the acre.

The CHAIRMAN: That is a good yield.

Senator McDONALD (*Kings*): Yes, it is.

Senator MACDONALD (*Queens*): That is the average. The production per acre has reached a figure of 600 bushels, 500 bushels. I myself have grown 400 bushels to the acre.

Hon. Mr. CULLEN: That yield has increased considerably in the last six or seven years. For several years we ran around 240 to 250 bushels per acre but in the last three or four years this yield zoomed right up.

Senator McDONALD (*Kings*): Principally through the use of commercial fertilizers, I take it?

Hon. Mr. CULLEN: Principally so, and also due to the control of light plus the new varieties of potatoes.

The CHAIRMAN: Are potatoes grown continuously year after year?

Hon. Mr. CULLEN: There is some of that done but I would say in the main that the farmers in Prince Edward Island follow a system of crop rotation. The rotation would be more intensive on some farms than on others.

Senator HORNER: You do not follow the practice we do in the west?

Hon. Mr. CULLEN: There is so little of that done in our province that you could say there is none of it.

Senator MACDONALD (*Queens*): It is practically nil. We have not enough land to do that.

Hon. Mr. CULLEN: There are some people who repeat the potato crop for two years in a row, but in the main they follow a practice of crop rotation.

Senator BARBOUR: I think that some of the large growers cut their clover crop and never take the clover off plowing it down for fertilizers.

Hon. Mr. CULLEN: Some of our commercial growers operate on a three-year rotation, potatoes, grain, clover and then plow the clover down and they have potatoes again the third year.

Senator HORNER: They get nothing from the land.

Hon. Mr. CULLEN: No, first they take the hay crop off and then plow down the aftergrass.

Senator BARBOUR: But a lot of these farmers are just miners, are they not?

Hon. Mr. CULLEN: Where that is done they make it a practice to cut the hay early and get a heavy crop of aftergrass and plow that down.

Senator McDONALD (*Kings*): For the benefit of those who do not know Prince Edward Island land you might tell them by way of exception a percentage of your land is barren land, that is to say you have not the rocky land found in New Brunswick and Nova Scotia.

Hon. Mr. CULLEN: A mention of that is made to some extent in the brief later on.

Senator McGRAND: Is the livestock produced sufficient to eat all the hay that is grown?

Hon. Mr. CULLEN: On the average, yes. Over a period of seven or eight years we had large surpluses in the hay crop, then in 1957 there was a light crop of hay and the hay got used up that year. A little of our hay is shipped to Newfoundland but not to any great extent.

Senator BARBOUR: I would say that the modern way of baling hay is not conducive to shipment. The bales are bulky. We used to press hay into bales of 200 pounds each but what they are doing today is pressing them into bales of only 50 pounds. Our seed potatoes now find a ready market in the United States, other Canadian provinces, Venezuela, Greece, Jamaica, Puerto Rico, and many other countries, while our table potatoes are sold in the larger consuming centers of Quebec and Ontario, as well as in the Atlantic Provinces.

Senator McDONALD (*Kings*): Have you any comparative prices for seed potatoes and table potatoes?

Hon. Mr. CULLEN: Actually there has not been too much difference. I would say that over the last five years the price for seed potatoes might average 10 per cent more than the price of table potatoes. Our difficulty there, as far as getting a premium for seed potatoes, is that 70 per cent of our crop has been inspected for seed, so we have far more seed potatoes than we have a market for. A lot of them have to go in for table stock. The price of seed in some varieties like cobbles would be 25 per cent or as much as 40 per cent higher. Katahdin might be 20 per cent and in the case of Sebago would be about 5 per cent. The average would not be more than 10 per cent over table potatoes.

Senator McDONALD (*Kings*): What is the importance of each grade of potatoes?

Hon. Mr. CULLEN: Sebagos comprises about 70 per cent. The cobbler and Katahdin are produced mostly for seed because they do not produce as heavy a crop and that is perhaps why the price of these varieties for seed is lower.

Senator McDONALD (*Kings*): The Sebago is grown so largely because it is a great producer and a good table potato.

Hon. Mr. CULLEN: A great producer and apparently a table potato that is accepted and asked for in the markets and they are highly resistant to disease compared with the green mountain disease. Compared with the Green Mountain the Sebago is much easier to grow.

Senator BARBOUR: Is it compulsory to plant certified seed potatoes?

Hon. Mr. CULLEN: Yes.

Senator HORNER: Mr. Chairman, I think if I had anything to do with it I would put on a campaign for the greater consumption of potatoes, and would prohibit the peeling of potatoes before they are cooked. Let me tell you of an experience I had just last year when I took a trip to San Diego, California and Las Vegas, Nevada. In that country if you order bacon and eggs you are never served any potatoes other than a few fried potatoes. But on this particular trip I was most surprised when I was served a goodly portion of potatoes. Now the potatoes served looked as if they had been riced and I decided that I would find out why the change was made. I looked everywhere to find the reason. By serving larger portions they use up an immense number of potatoes. Everyone was having potatoes for breakfast. In Las Vegas I found the secret and here it is: the potatoes were baked in their skins and they are kept warm until required. Cooking them that way very little grease was used in the cooking and they were just delightful. I remember when I was batching it I scrubbed the potatoes well and then boiled them. Now, a lot of women won't believe this. For example, you are in a hurry for the next meal and if you have some of these boiled potatoes you can heat them up in a hurry by setting them on the fire for a few seconds and then put them on the table and no one can tell that they were not freshly boiled potatoes. Now you cannot do that with a potato that has been peeled.

Hon. Mr. CULLEN: I think Senator Horner has something there, that if we could teach people to cook potatoes better there certainly would be wider use of them.

Many farms that were badly impoverished in the days when cereals were the cash crop have been returned to a high state of fertility, but there are still areas that show the effects of the bad farming practises that were carried on over fifty years ago. Some of these areas should never have been cleared of trees. There are some areas in the western part of the province that would benefit by drainage, but it must be kept in mind that practically all the land in Prince Edward Island could be farmed. There is not an acre in Prince Edward Island that is too rocky for agriculture. There is very little swamp, and even the areas which are described in our soil map as submarginal for agriculture could be farmed if a market were available for the crops which these areas could produce.

I would like to say that there is a little exception to that and I am thinking particularly of the light sandy areas which could produce potatoes and will produce them with fertilizer even though in the most sandy areas they might not produce much of a crop.

Senator MACDONALD (*Queens*): I would agree with that.

Hon. Mr. CULLEN: That is what I mean when I say every acre in the province could be used if we had a market for the crops that could be produced on those acres.

Of the total land area of the province over 76 per cent is classed as farm land. Breaking the figures down still further approximately 60 per cent can be considered as improved acreage. In common with other provinces of Canada the total farm area and total number of farms continue to decline. The follow-

ing table shows the comparison of the 1951 and 1956 census figures regarding this matter:

	1951	1956	% Change
Total Farm Area	1,095,304	1,065,463	- 2.7
Total No. Farms	10,137	9,432	- 6.8
Av. Ac. Farm	108	112.9	+ 4.5
Improved Land	645,795	645,492	- .04
Under Crop	426,210	419,099	- 1.6
Pasture	197,937	201,225	+ 1.6
Other	21,648	25,168	+16.2
Unimproved Land	449,509	419,971	- 6.5
Woodland	346,191	334,226	- 3.4
Other	103,318	85,745	-16.8

You will notice that the number of farmers has declined by 6.8 per cent and the area of improved land by .04 per cent, and the total area in farms has declined by 2.7 per cent. These figures I find, of course, can be used in so many ways that they are very unreliable but I think this gives a very true picture in that we do have some vacant farms and we have more vacant farmsteads than we have vacant farms because adjacent farms have been taken over by farmers and they are not using the buildings on the farm so taken over, that is they are not using the barns and other outbuildings.

Senator BARBOUR: I think it could be said that a lot of that farm land is being farmed today better than it ever was before.

Hon. Mr. CULLEN: That is quite true. We have made a statement on that towards the end of the brief.

Senator BRADETTE: I see from your table that the area in woodland has decreased by 3.4 per cent. That is astonishing because as far as I know there has been a lot of reforestation in the Maritimes.

Hon. Mr. CULLEN: That is true, but I doubt if that figure is too reliable because I don't think there was that much land actually cleared. I think that would create a difference of opinion as to what was woodland or something when the census was taken.

The CHAIRMAN: Do they farm that woodland?

Hon. Mr. CULLEN: There is some of that being done now but I may say that there was not too much of it done in the past except that a good careful farmer without any particular training in forestry just naturally was careful of his woodland and handled it in a reasonably good manner while others slashed it in the worst possible way. But this is like any other type of farm management, the man that was naturally a good farmer would know how to manage his woodland without any training.

It will be noted from these figures that the province has maintained a good balance between total farm area and total improved acreage. Although there was a decrease of 30,000 acres in farm area there was a decrease of only 300 acres of improved area. From these observations it appears that land is not going out of agriculture at the expense of the improved acreage. It will also be noted there has been a 4 per cent increase in the size of farms.

In discussing a problem of this kind it would be safe to presume that a small farm would be one where the resources of agricultural activity are inadequate to provide a standard of living that would be satisfactory for the operator and his family. We realize that this is a rather "loose" definition of a small farm and no attempt will be made to define a satisfactory standard of living. The small farm might be classified into three general types:

- (a) "Residential"—used principally as a home with no attempt made in regard to commercial agricultural production.

- (b) "Part-time"—where considerable of the operator's time is spent off the farm, and possibly 50 per cent or more of his income is derived off the farm.
- (c) "Full-time"—where the operator spends most of his time on the farm, as well as deriving most of his income from the farm.

It is possible that we should not be too concerned about the first two subdivisions, but take a close look at the full-time small farmer and the use he is making of the land. Perhaps we should further subdivide this last type into:

- (a) Those farmers who wish to remain on the farm as a way of life and accept a lower standard of living;
- (b) Semi-retired operators who are unable to operate larger farms due to reasons of health; and
- (c) Those farmers who are desirous of overcoming their problems.

It would then seem that the question to consider in regard to land use is whether or not the available agricultural land is being used to the best possible advantage.

Land use classification is based upon soil texture, nature of the topography, natural drainage conditions, and on the general suitability of the soil to produce the crops commonly grown in this province. In order to determine this land use, reference is made to the Soil Survey Report by G. B. Whiteside, and published in 1950. In this publication six land use groups are given, and the following table shows these groups:

LAND USE GROUP		
Group	Acres	% of Total Area
1	776,385	56.7
2	35,440	2.6
3	195,865	14.3
4	141,180	10.3
5	175,625	12.9
6	73,490	3.2

The soils included in group 1 consist of the better agricultural and potential agricultural land. The greater proportion of the soils in this group are under cultivation. They are well suited to a wide variety of crops and are capable of producing good yields.

Group 2 consists of good to fair agricultural soils. They have a slightly lower rating than those in group 1, and are more restricted in crop adaptability.

Soils in group 3 are fair to marginal agricultural land, unfavourable soil moisture conditions being the limiting factor. The light texture causes these soils to have a low moisture-holding capacity. Under good management conditions these soils are capable of producing fair yields of the generally grown crops.

Soils in group 4 are marginal for agriculture because of the nature of topography, erodibility and poor natural drainage conditions. The soils here are of two types: The rolling type where erosion is a problem unless kept under grass, and the flat type with poor natural drainage.

Group 5 are submarginal soils that have extremes in drainage. When cleared they support poor natural grass, and even under good management yields are only fair to poor. Much of the land in this group that had been cleared is now reverting to blueberry barrens and woodland.

Non-agricultural land is represented in group 6. Extremes in topography, unfavourable natural drainage conditions, and susceptibility to severe erosion, together with high cost of reclamation and maintenance restrict the agricultural use of these areas.

The CHAIRMAN: What is the nature of your subsoil in Prince Edward Island, is it clay or rock?

Hon. Mr. CULLEN: It is what we call brick clay for I would say half the area; the other half, generally speaking, would be different formations, part of it being shale rock and part a type of white sand. But most of the province has a subsoil of a type of brick clay.

The CHAIRMAN: That holds the moisture?

Hon. Mr. CULLEN: Yes.

Senator McDONALD (*Kings*): Most of the soil is a clay loam?

Hon. Mr. CULLEN: No, it is described as a sandy loam. We have clay loam in the westerly part of the province, but it would not be more than one-eighth of the total, perhaps less.

Senator McDONALD (*Kings*): And the soil has a reddish colour. You can tell a Prince Edward Island car going through Nova Scotia.

Hon. Mr. CULLEN: You can spot them anywhere.

I might say that the next portion of the brief was prepared by an economist and our soil analyst, and it is perhaps a bit more technical than other parts.

The size of the farm has changed quite noticeably over the years, and it will be noted that most pronounced change has been in the number of small farms. The following table sets forth the changes in farm size from 1911 to 1956:

NO. of FARMS of DIFFERENT SIZES in P.E.I.

Size of Farm	1911	1921	1931	1941	1951	1956
1- 50 acres	4,877	4,255	3,742	3,428	2,114	1,848
51-100 "	5,495	5,568	5,071	4,696	3,806	3,437
101-200 "	3,277	3,328	3,418	3,412	3,447	3,293
over 200 "	514	550	634	694	770	854

It may perhaps be well to consider the small farm under the terms of those that are classed as "commercial" and "non-commercial" farms. Commercial farms are those having a potential annual production of \$1,200. or more, and non-commercial farms are those having a potential annual production of less than \$1,200. According to figures prepared in 1956, 26 per cent of the farms in Prince Edward Island are classed as non-commercial. In classifying these non-commercial farms according to improved acreage we find that 77 per cent have from 10 to 69 acres. This clearly shows that a large proportion of the non-commercial farms are small in size, as well as having a small income. While the small farm has been important in maintaining the rural population it has never been as intensively farmed as our larger farms, and therefore has not had the impact on the total agricultural production that its numbers would indicate. The owners of these small farms would keep two or three milk cows, a few hens, and possibly a hog or two, which would be killed for home consumption, but he would make no effort to cultivate the land and would depend on working for some one else to buy those things for which cash was needed.

Senator HIGGINS: Is a 69-acre farm considered a small farm in your province?

Hon. Mr. CULLEN: I would say many of the farms over 50 acres are very well farmed. I would regard farms under 50 acres as being classed as small farms. Like any other sweeping statement, this can be challenged because there are exceptions to it. But I think the Prince Edward Island senators here will agree with me, that as a general thing the smaller farm is not as well farmed as is the larger farm. Many of these people depend for their income, as stated here, on working for their neighbour, or fishing part of the year, or

working at some trade. In general, it is surprising to note that in the case of the small farms, where you would naturally conclude that a man with 35 acres would farm intensively, the reverse is true in, I would say, over 80 per cent of the cases.

Senator HIGGINS: Do they not keep sheep on farms of 50 acres and under?

Hon. Mr. CULLEN: No, there are very few keep sheep on small farms.

Senator HIGGINS: Where do they keep the sheep?

Senator BARBOUR: A lot of those small farmers work with other farmers.

Hon. Mr. CULLEN: That is true.

Senator BARBOUR: And perhaps get their grain cut with their neighbour's machinery, and so on.

Hon. Mr. CULLEN: That is true. It seems that the man with a small acreage unconsciously feels that the capital investment for machinery is too large—I don't think he sits down and figures it out on paper—and he decides to borrow machinery from his neighbour and perhaps work for him for the cash he needs to live on.

Senator McDONALD (*Kings*): In other words, they could not afford to buy expensive equipment because they would not operate it enough to justify the cost.

Hon. Mr. CULLEN: That is the hard commercial test.

Senator BARBOUR: To what extent are horses being used?

Hon. Mr. CULLEN: To a small extent today. There are quite a number of farmers who do not have tractors, but they get their work done by their neighbour's tractor. Naturally, that is where the small farmer is at a disadvantage, for he has to depend on his neighbour's tractor to do his work, and the neighbour does his own work first.

Senator HORNER: I am sure he would be better off with a team of horses.

Hon. Mr. CULLEN: I would not care to commit myself on that point—I don't know.

Senator McDONALD (*Kings*): Are any of those farmers getting together to buy their equipment jointly and use it to operate two farms?

Hon. Mr. CULLEN: As for tractors, no; I would say very few tractors are jointly owned in Prince Edward Island. With respect to some other types of machinery like power sprayers, combines and hay pressers, quite a few are owned by two or more farmers.

Senator McDONALD (*Kings*): Could they not successfully share the use of tractors?

Hon. Mr. CULLEN: I think it is possible and desirable. In a good development it could be done. Possibly one reason it has not been done is that farmers who attempt it start off on the assumption that they are good friends, and there is no need for an agreement, with the result that they get into trouble and the arrangement is broken off. If they purchased tractors and other equipment on a joint basis and had a written agreement before they started as to how it would be financed and operated, I think it would be a desirable thing.

The CHAIRMAN: Are there on the average sufficient jobs for the small farmer to enable him to maintain himself and his family?

Hon. Mr. CULLEN: To answer your question as it is worded, on the average, I would say no. It is true that during the war and for several years thereafter, because of abnormal conditions there was sufficient work to employ all these people in their spare time. But if you take the conditions over the last 30 years and take your average on that I would say there is not enough, because we have examples of that every day, of bringing dozens of people in the office looking for jobs.

The CHAIRMAN: Another question I would like to ask is that of taxation. Have you any idea of the taxes per acre?

Hon. Mr. CULLEN: No, I am afraid I have not information on that.

Senator BARBOUR: I think the only tax is the school tax.

Hon. Mr. CULLEN: That is right, but the school taxes have become fairly high. There is no provincial land tax. It was in 1947 that the Government relinquished that tax in favour of the schools tax.

Senator HORNER: What about your municipalities?

Hon. Mr. CULLEN: There are no municipalities in Prince Edward Island. That includes all the farm areas. We have villages and towns, and in some cases they may include a few farms in their fringes.

Senator HORNER: What about roads?

Hon. Mr. CULLEN: All provincial government.

Senator HORNER: Where do they get the tax for that?

Hon. Mr. CULLEN: Gasoline.

Mr. HORNER: It is a vicious circle. But of course the problem is that the gasoline tractor adds nothing to the fertility of the soil; in fact, it practically kills your soil. By using horses fertilizer is provided to the land.

Hon. Mr. CULLEN: Now, we cannot lose sight of the fact that fertilization plays an important role in land use, as well as in the extent of income earning capacity. During the past twenty to twenty-five years the use of commercial fertilizer has increased tremendously with the greater amount being utilized for potato production. In spite of the importance of hay, grain and pasture, as crops in this province, fertilization of these crops has developed very slowly. Limestone is very important to our soils for the production of legumes and pasture, but the use of this material is not increasing to any appreciable extent.

Through financial assistance to food processing plants an attempt has been made to interest small farm operators in the production of small fruits and vegetables. Strawberries are one crop that has been grown successfully on many of our small farms, and have added materially to the income of those farms. There are many acres of land in Prince Edward Island that are suitable only for the growing of blueberries, and an effort has been made to interest owners of this land in the development of these areas as a commercial undertaking. The Provincial Department of Agriculture is now promoting the production of other crops for freezing and canning. These should provide some of our small farms with a means of improving their income with crops that do not require a large capital outlay, and could provide employment for the whole family.

Senator HIGGINS: Is there any way to increase the crop of blueberries?

Hon. Mr. CULLEN: Well, of course, blueberries grow wild and people pick them; otherwise they do without. We have been trying to develop and encourage these areas, such as they do in the State of Maine. I must say that we have not had too much success, but we do have a gradual increase of the acreage.

Senator HIGGINS: Blueberries in Newfoundland are all grown on Crown lands—on thousands of acres, and people go out and pick them; they are free to be picked by anybody. The Government burns some of the areas there and they are turned into blueberry areas.

Hon. Mr. CULLEN: As I have said, most of the land in Prince Edward Island is privately owned, so we have been trying to interest the private owners in developing the blueberry crop on their own land. I think it could and should be a very profitable crop, but we have not had too much success.

Senator HIGGINS: There are so many blueberries in Newfoundland that they can never be picked; they grow wild; the hillsides are purple with them, and every body is free to pick them.

Hon. Mr. CULLEN: On the east coast of Newfoundland there are more frost-free days than in most of the other provinces, although they are farther north, because Newfoundland is surrounded by water.

Senator MACDONALD (*Queens*): I note, regarding the use of limestone, that this material is not increasing to any extent. Is that because of the cost?

Hon. Mr. CULLEN: The subsidy on limestone is provided by the federal and provincial governments. The federal Government contributes 60 per cent, and we pay 40 per cent. The subsidy was increased last year 50 cents, and this year it is 60 cents, but these increases in the subsidy have only kept pace with the increases in freight rates, not over just the increases for these two years but over the past six or seven years, so that actually our subsidy is just holding its own. The cost to the farmer there is about \$5.50 a ton for bags, and \$3.80 a ton for bulk. That is a kind of average. Some are \$5.25, and they run as high as \$6.

Senator BARBOUR: What percentage goes to limestone?

Hon. Mr. CULLEN: The percentage is very small. It probably might go up to 25 per cent this year because of the increase in freight rates.

Senator MACDONALD (*Queens*): What percentage of your soils require lime?

Hon. Mr. CULLEN: I would say 100 per cent require lime, but there are a few small areas that would not, that have become very heavily mudded with oyster shells.

Senator MACDONALD (*Queens*): I suppose if you could afford to it would be good business to increase your subsidy and lower the price to the farmer and get more lime used on the soils?

Hon. Mr. CULLEN: I think by and large it has been the best policy that we have had in the Department of Agriculture over the period of years that it has been enforced. I think it has been done more for agriculture than anything else.

Senator MACDONALD (*Queens*): I think our lime policy did more for farmers than any other policy of the provincial Government. During the war years in order to encourage farmers to use more lime they brought the price down to \$1.50 at the nearest railway station and that started the farmers using it.

Senator BARBOUR: What is the average price of fertilizer there to the farmer? I am speaking of the Island. It would be well up to \$50 a ton, would it not?

Hon. Mr. CULLEN: Yes, I think some of the lighter types run around \$46 a ton, and the more concentrated varieties perhaps run up to \$58.

Senator HORNER: Do you make any use to any extent of lobster backs and oyster shells? Are they of any value?

Hon. Mr. CULLEN: Not too much in recent years.

Senator HORNER: I understand they use it as fertilizer in the vicinity of the lobster canning plants.

Hon. Mr. CULLEN: The percentage would not be too high now. They would not bother to truck it any distance. At one time they spread them over a large area but today they give somebody a contract for removing this stuff and the contractor piles it over a small area. The percentage of land benefiting from it would be very small. In the days before World War I people used to dig mud out of the rivers. It would be partly the run-off

from the land and apparently these oyster and muscle shells that were decomposed lay in the bottom of the river in this mud. The shells had a high content of lime and phosphorous.

Senator BARBOUR: That would be superior to limestone?

Hon. Mr. CULLEN: It would, but with today's high cost of labour it would be prohibitive to take this stuff from the river bottom.

Senator HIGGINS: Is this used as fertilizer?

Hon. Mr. CULLEN: I was just informing the committee about that. Nowadays these plants call for tenders to remove this produce and it probably goes to one farm only, just to get rid of it. Before World War I such things as lobster backs and oyster shells were spread thinly over a large area, but today it is just a question of getting rid of this stuff. Somebody tenders for the contract to remove it, and the number of acres that would benefit from it would amount to little.

Senator HIGGINS: Small farm operators around Saint John's, Conception Bay, Trinity Bay and other places in Newfoundland use caplin for fertilizer. It is rather unfortunate because the caplin is one of the finest tasting fishes in the whole world. They are caught by the trillions and their entrails, and so on, are used as fertilizer. You will see a whole farm lined with caplin.

Senator BRADETTE: Is it a big fish?

Senator HIGGINS: About this size (indicating approximately six inches).

Hon. Mr. CULLEN: Some explanation should be made with regard to the last paragraph and the processing plant referred to therein. A lot of people thought that this frozen food plant started last year was going to be a gold mine, and they were disappointed. The growing of peas and so on did not turn out to be as profitable as many people expected. I hope conditions will improve in the future when we have had more experience. Nevertheless, other types of crops were grown with more profit. I refer to such things as string beans, cauliflower, parsley, sprouts, asparagus, broccoli, and of course strawberries. While I do not anticipate anybody is going to get rich growing these crops, these small farms we are speaking about now which need some additional income, especially where there are large families, could do very well growing some of those crops. I have a letter from one woman who made \$75 out of a quarter acre of beans, and another man wrote to say that he made \$375 on less than an acre of broccoli. That may sound like a lot of money but actually these people were not getting much more than good wages for their work. However, in an area where there is no other work available, that in itself might be desirable.

Senator BARBOUR: Matthew and Wells started putting up cucumbers grown in Prince Edward Island. Are they still getting plenty of cucumbers?

Hon. Mr. CULLEN: I believe they are on an average.

Senator BARBOUR: How do they ship these cucumbers out of the province?

Hon. Mr. CULLEN: They ship them out in tank cars. They brine them and put them in tanks which are built like silos. They look like silos driving by, and they shovel them out of these into the tank cars and take them to Guelph where they are preserved.

Senator BRADETTE: Guelph, Ontario?

Hon. Mr. CULLEN: Yes, Guelph, Ontario.

Senator BARBOUR: I suppose it is cheaper to send them up to Guelph in tank cars and preserve them there than to bottle them in Prince Edward Island?

Hon. Mr. CULLEN: I imagine they have an agreed charge with respect to that. They would have an agreement, knowing they are going to ship so much of this stuff each year.

Senator INMAN: Has anybody ever thought of making the pickles right down there?

Hon. Mr. CULLEN: We have repeatedly asked this company to establish a plant there, and other companies as well, but so far nothing has been done. When they began this business of growing cucumbers there and hauling them to Guelph, they spoke as though they intended to establish a plant in P.E.I. but they have not done so to this point.

The CHAIRMAN: Will the St. Lawrence Seaway have any effect with respect to freight rates in bringing this stuff into Ontario?

Hon. Mr. CULLEN: I don't think so because they have special tank cars which I imagine are standing by their railway siding in Guelph, and if they were taken by water they would have to be transferred to another form of transportation and they would have to have holding facilities at this end, and so on.

Prince Edward Island farmers are ideally situated to supply foodstuffs for the other Atlantic provinces. The Atlantic region is deficient in all meat products with the exception of mutton and lamb, while Prince Edward Island producers more than she consumes of all meat products except turkey meat.

The following table sets forth the estimated consumption and production figures for Prince Edward Island and the Atlantic Provinces for 1956:

			P. E. I.	Atlantic Provinces
PORK	Consumption lbs.		4,676,000	80,497,000
	Production "		11,154,000	28,601,000
BEEF			+ 6,478,000	- 51,896,000
	Consumption lbs.		6,682,000	112,789,000
	Production "		11,300,000	48,947,000
MUTTON & LAMB			+ 4,618,000	- 63,842,000
	Consumption lbs.		238,000	4,399,000
	Production "		699,000	4,765,000
CHICKEN & FOWL			+ 461,000	+ 366,000
	Consumption lbs.		2,184,000	37,640,000
	Production "		3,421,000	18,512,000
TURKEY MEAT			+ 1,237,000	- 19,128,000
	Consumption lbs.		397,000	7,972,000
	Production "		264,000	2,609,000
EGGS			- 133,000	- 5,363,000
	Consumption doz.		2,284,000	37,908,000
	Production "		5,995,000	35,315,000
			+ 3,711,000	- 2,593,000

We realize that these figures are estimates, but they do point up the fact that Prince Edward Island is an exporting province, and that there is a market for all meat products produced in the Atlantic region. With the exception of potatoes and apples the Atlantic Provinces do not produce their own staple food supplies. With the development of that part of Canada that lies to the north of Prince Edward Island the possibility of extending our trade in agricultural products should be exceedingly good as this province is the nearest agricultural area to these new developments. We feel that if transportation barriers can be overcome so that our produce can be made available to these new areas our farmers would be in a position to increase their production.

We trust that your study of agricultural problems will result in a Land Use Policy that will be beneficial to Canada for many years to come.

Senator HORNER: Someone should tell us what the taxes are on, say, a hundred acres of good land.

Hon. Mr. CULLEN: The school tax on a hundred acres of good land would be about \$150.

Senator BARBOUR: The taxes on 100 acres?

Hon. Mr. CULLEN: Yes.

Senator BARBOUR: It is not in the regular school districts.

Hon. Mr. CULLEN: You would be surprised how they have gone up. I would say that the school taxes in the country districts of Prince Edward Island have increased by perhaps 5 times within the last 10 years.

Senator HORNER: Mr. Chairman, on page 2 Mr. Cullen states that in the 1890's the first cheese factory was established in the province. What is the state of the cheese factories at the present time in Prince Edward Island?

Hon. Mr. CULLEN: The cheese factories have practically all been changed over to butter factories. We have three cheese factories now operating, and the butter factories have been consolidated as well. We have two quite large ones and probably about 12 smaller butter factories or creameries, but consolidation is taking place all the time.

Senator McDONALD (*Kings*): Why would there be a change made from cheese to butter?

Hon. Mr. CULLEN: That shift has been mostly since the First World War, and, to some extent, since the Second World War when we had six cheese factories and now we have three. It is a matter of price support.

Senator McDONALD (*Kings*): And because they had the skim milk?

Senator HORNER: In the years you mentioned you were selling your cheese to Great Britain. Have you a market there yet?

Hon. Mr. CULLEN: In the early part of the century, back before the First Great War, we sold cheese to Great Britain, but there was not much sold—there has been some sold since the First World War. Senator McDonald should know more about that than I do because he was President of the Dairymen's Association down there for some years.

Senator BARBOUR: There was some change in the 30's. We supply some to Great Britain, but we do not manufacture enough cheese in the Maritimes to supply the Maritimes market.

Hon. Mr. CULLEN: But that does not say that we do not have a good market for cheese, because we have had very, very heavy pressure from Quebec and Ontario cheese in the Maritimes market.

Senator BARBOUR: Yes. While they keep out of our market we have an exceedingly good market for cheese in the Maritimes.

The CHAIRMAN: Yes. I have a question here that I would like to ask. I see that pasture land has increased. That is, I suppose, because the dairy herds are increasing.

Hon. Mr. CULLEN: That is true, and it is also true that 25 years ago, I do not suppose there was more than a few acres—certainly not 1 per cent of the farms in Prince Edward Island which had any permanent pasture. There has been a very strong trend towards permanent pasture, possibly not as much as we should have had, because we found these permanent pastures will produce a tremendous amount of forage. During the last part of the nineteenth century and during the first 15 years of the present century we had a tremendous lot of propaganda for rotation—that is, crop rotation—down there, and I believe, at least as regards permanent pasture, there was some damage done by that type of propaganda. People felt that they were not farming at all if they did

not have a five year rotation or a four year rotation over their whole farm, and it is only in the last—well, possibly the trend started during the Second World War when help was so scarce, and at that time people started to develop permanent pastures. Today we have some really good permanent pastures in Prince Edward Island, and it is increasing year by year.

The CHAIRMAN: Do you suffer from drought at all down there?

Hon. Mr. CULLEN: Well, Senator McDonald was talking about that this morning. The last drought we had was in 1921.

Senator HORNER: That was a serious one.

Hon. Mr. CULLEN: Yes.

The CHAIRMAN: What is the average rainfall?

Hon. Mr. CULLEN: I have not the figures. I should have made a note of that.

Senator HORNER: Then, Mr. Cullen, in view of the fact that your farms are tending to become larger the population of Prince Edward Island is about all the island can carry? People must pretty well move away?

Hon. Mr. CULLEN: I would not say that that is the case. At the present time we are pretty well limited to farming and fishing. Now, the fishing business can be developed. It is only limited by the markets, I would say, and the enterprise of the people. I have only the figures for 1951, but I think the 1951 figures show that only 7 per cent of the fish taken in the Gulf were taken by Canadian ships. That is at that time. The ships of Russia, Spain, Norway and Iceland, and all these other nations, and of the United States, were all fishing in the Gulf of St. Lawrence.

Senator HORNER: What is the limit? Have you any reserve? Is it three miles, or what is it, around the island that is reserved for the island fishermen?

Hon. Mr. CULLEN: There is a three-mile limit that applies to all ships, but three miles is pretty small. That applies to all the ships of all the nations, but, strange to say, Canadian ships—that is ships of over 100 feet in length—are not supposed to fish inside 12 miles. There is an agitation right at the moment to have that changed, and I think it actually was changed. I believe it was changed by an amendment to the Act only last winter, but I do not think it has been proclaimed yet; I think there has been some delay. That change will allow Canadian ships to come in as close as the foreign ships.

Senator HORNER: I cannot understand why Canadian ships were kept out.

Hon. Mr. CULLEN: It is fairly simple. The reason is that they could pass laws as to what Canadian ships could do without any war or diplomatic repercussions. They would certainly have restricted the others from coming in had they been able to do so without causing trouble.

The CHAIRMAN: One of your problems, then, with the small farmers might be the encroachment of fishing? Are they too far away from the sea to qualify?

Hon. Mr. CULLEN: I was not suggesting that they were, but what I was suggesting was that since our province is limited to these two types of enterprise, and since there are market available in the Maritimes for much increased production, I feel that our province, even on the acreage we are presently farming, with more extensive methods could probably double the production of many of our products, and I think that would be a desirable thing to do. We could not do that just over night, but if we did that we could then support a much larger population. I think a desirable development also would be to contain our population, or even increase it, and we could do that by processing all of these farm products and fishery products right in our own province.

Senator HORNER: I was going to say that I do hope the young people will come to western Canada instead of going south of the border. We have plenty of room out there, and we would like to have them.

Senator BARBOUR: At an earlier meeting here there was something said about your going to have an investigation with the federal officials in regard to small farms this summer. Is there anything in that?

Hon. Mr. CULLEN: Not particularly on small farms. We are having what is called sociological survey made in the province which is being made between the provincial and federal departments of Agriculture. It was first asked for by the Federation of Agriculture in the spring of 1958. They asked the Federal Department of Agriculture to perform such a survey in selected areas in the province, and we supported their request for this survey—that is, the Government of Prince Edward Island supported the request. I was discussed at various times during the summer, and finally last Fall the federal department made the proposition that they would supply certain workers if the Government of Prince Edward Island would do likewise, and we have agreed to do that.

Senator BARBOUR: Is it a joint effort?

Hon. Mr. CULLEN: Yes. The people from the department in Ottawa were down there last week. I was talking to them on Monday and Tuesday just before I left to come up here. Dr. Abell and Dr. Dyck of the Federal Department were there—in fact, they are still on the island, and that expect to be there all this week arranging for this survey which will take place in July or August of this year, probably. The idea of the survey is to try to determine some facts in regard to some of these things we have been discussing this morning.

The idea of the survey is to try to determine some facts on some of these things we have been discussing this morning, and when I say this I do not want anyone to say that we are going to get it down to an exact number of acres as to what would be the minimum size of a farm which could support modern mechanized farming. In other words we want to find out what is happening in our more prosperous areas, in our poorer areas and in what you might call the average area, what type of development is sort of indicated in the future by what has been happening in the past.

Senator HORNER: Have you a packing plant now to look after your pork production?

Hon. Mr. CULLEN: There is a meat packing plant at Charlottetown operated by Canada Packers.

Senator HORNER: That has only been placed there in recent years?

Hon. Mr. CULLEN: No, we have had the packing plant there for a long number of years.

Senator McDONALD (*Kings*): This present packing plant was constructed by the Rattenberry's away back in 1890. Davis and Fraser took it over after that.

Senator WALL: Mr. Chairman, in the context of the problem discussed in the brief, and thinking of some of the measuring sticks we might achieve from the survey mentioned, would you care to comment on the kind of provincial and/or federal improvements credited in whatever field you have ideas on which would assist in meeting some of these problems, and I am interested in your comments concerning the kind of extension of provincial policies or federal policies which would assist in meeting some of these problems. Would you care to comment on that?

Hon. Mr. CULLEN: I have no objection to commenting on that but I am afraid anything I would say would not shed much light on the subject. That is one of the questions that is being dealt with in this survey that is being made.

Certainly our federation of agriculture and farm organizations have asked for credit facilities over the last six or seven years. That has been one of the things that they have been asking for in briefs presented to the provincial legislature as well as the annual brief presented to the Government of Canada through the National Federation of Agriculture. The peculiar part of this thing is that although we have this demand in Prince Edward Island other provinces have also had it, and the actual figures for the 1951-56 period do not show that the provinces that had much more agricultural credit available than our province had. Those figures do not show that they have done any better as regards retaining their farm population.

Senator WALL: In other words there are social factors in the problem?

Hon. Mr. CULLEN: There must be other factors. I think possibly the thing that could return more people to the land possibly than anything else would be a recession or lack of employment in the cities or something like that. I want it understood of course that I am not advocating that. I do not want people to return to the land because they cannot get anything else to do, but nevertheless we did have in Prince Edward Island an increase of 2,000 farms in operation in the 1930's and while it was desirable to increase our population and thus broaden the base of taxation and all that sort of thing, still we do not want to return to those conditions, and have people returning to the land for that reason. Actually I think that farming like anything else just boils down to a dollars and cents basis, that if there is profit in it people will remain on the farm and if there is no profit in it they will have to get out.

Senator WALL: For example, the production of meats of various kinds, if done with good husbandry, is it profitable to Prince Edward Island?

Hon. Mr. CULLEN: I believe it is.

Senator WALL: And in order to increase that type of production what would be necessary?

Hon. Mr. CULLEN: The continuation of good prices is the desirable thing. I might point out in this regard that we speak in this brief of the market that is available in the Maritime provinces and it is quite well known. I mean all our people there refer to the fact repeatedly that here is this market all around us, but nevertheless that market, but in spite of that that market is subject to all the pressure of surplusses across Canada. We have not that market sewed up. Another thing is the support price of hogs, which is based on Montreal prices, so we receive the Montreal price less freight to Montreal even though the Maritimes is a deficiency area. There might be some room for improvement not only in hogs, but in some of our products in that regard, if it could be arranged that we receive the floor price in Montreal plus the freight rather than minus the freight. Then that would encourage the farmer.

You asked what could be done to increase the purchase of livestock. I would say continued profitable prices would automatically do it. If beef prices continue as they are now over an extended period of years we certainly would extend our beef production but we do not know if that is possible.

Senator McGRAND: Mr. Chairman, Mr. Cullen mentioned a study that may take place, a social-economic study. Now in the march of mechanized farming are you not going to displace people from the land forcing them into something else? People so displaced are either going to stay in Prince Edward Island or they are going to leave. I presume that you are going to search for ways in which you can retain them?

Hon. Mr. CULLEN: Yes, there is a chance for research in this field. With respect to the frozen foot plant that started operation last year, if it proved successful, similar establishments might be undertaken though that could not be done over night, but rather over a period of years, which would provide something for the small farmer. Products like beans and broccoli can be grown

with very little equipment, because most of the work is done by hand. If we could encourage something like that it might help the small farms to survive as farming operations; otherwise they will do as you have said, be consolidated into larger farms with a consequent reduction of farm population.

One of the things we have tried to determine in this survey is where this consolidation is likely to stop. I am sure we will get no exact answer on it, but trends may be shown in some areas which will indicate what may happen in other areas. In other words, when the average farm gets up to 150 acres or more, will the consolidation stop there or will it continue.

Mr. STUTT: I notice that the size of farms in Prince Edward Island has not increased too much in the past five years, in relation to the 1951-56 census. The only county in which they seem to have increased very much is Queens, in the western part.

Hon. Mr. CULLEN: The central part.

Mr. STUTT: Could you tell us why that is so?

Hon. Mr. CULLEN: I could not tell you exactly why. I think Queens county would perhaps be the most prosperous farming area in the province, and that might be a reason why there has been more consolidation of farms in that area; there is perhaps more money to buy equipment.

The CHAIRMAN: And more people have moved into Charlottetown, probably.

Hon. Mr. CULLEN: These percentage figures with respect to Prince Edward Island, small as it is in area, may be misleading, because a few farms could change the picture. But in Queens county I would say that when people left, the farms were taken up by other people, while in Kings county, in the western part, and perhaps in Prince county, if a man left his farm it was left vacant.

Mr. STUTT: In other words, abandonment is more common in the eastern part.

Hon. Mr. CULLEN: Yes. There is some abandonment in Queens county, but it is somewhat less because it has better land; but there is also the question of isolation. We find there are two—and these are not the only two—reasons for abandonment of farms: first, because the land is poor, and second, because the particular area is far from the railroad, is without a good paved road and does not have electricity.

Senator BARBOUR: I think there is quite a difference in the farm land between Summerside and Charlottetown: it is more central and markets are accessible. I think it can be said to be the most progressive and best farming district.

The CHAIRMAN: If there are no more questions, it would be in order to move a vote of thanks to Hon. Mr. Cullen for taking the time to come here and give us a good picture of what is happening in Prince Edward Island.

Senator MACDONALD (*Queens*): Mr. Chairman, I suppose it falls to me to move such a motion. May I say, I am very happy that Mr. Cullen has been able to come to meet with us and give us this interesting brief, covering the history of farming in the province of Prince Edward Island. I have known Mr. Cullen for many years, and although we have had a couple of bouts politically, we have remained nonetheless good friends.

I am happy to have the privilege, on your behalf, of moving a sincere and hearty vote of thanks to Mr. Cullen for his presentation here today.

Whereupon the committee adjourned.

2nd Session, 24th Parliament, 1959

THE SENATE OF CANADA



PROCEEDINGS
OF THE
SPECIAL COMMITTEE OF THE SENATE
ON
LAND USE IN CANADA

No. 5

THURSDAY, APRIL 30, 1959

The Honourable Arthur M. Pearson, Chairman

WITNESSES:

Ontario Forest Industries Association: Gordon Godwin, Director, Professor D. V. Love, Mr. J. B. Matthews, Member, Mr. J. W. McNutt, Past-President, Mr. D. R. Rogers, Director, Mr. C. R. Mills, Manager and Mr. S. F. Rook, Vice-President.

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Pearson
Basha	Horner	Power
Bois	Inman	Smith (<i>Kamloops</i>)
Boucher	Leger	Stambaugh
Bradette	Leonard	Taylor (<i>Norfolk</i>)
Buchanan	MacDonald	Taylor (<i>Westmorland</i>)
Cameron	McDonald	Turgeon
Crerar	McGrand	Vaillancourt
Emerson	Methot	Wall
Gladstone	Méthot	White—31.
Golding	Molson	

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—

Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

THURSDAY, April 30, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 10.30 A.M.

Present: The Honourable Senators:—Pearson, Chairman; Barbour, Basha, Bois, Boucher, Crerar, Golding, Higgins, Horner, MacDonald, McGrand, Smith (*Kamloops*), Stambaugh, Taylor (*Westmorland*), Vaillancourt and Wall.—16.

In attendance: The official reporters of the Senate.

The Committee proceeded to the further consideration of the order of reference of Tuesday, February 17, 1959.

The following witnesses representing the Ontario Forest Industries Association, were heard and questioned:—

Mr. Gordon Godwin, Director, Professor, D. V. Love, Mr. J. B. Matthews, Member, Mr. J. W. McNutt, Past-President, Mr. D. R. Rogers, Director, Mr. C. R. Mills, Manager and Mr. S. F. Rook, Vice-President.

At 12.30 P.M. the Committee adjourned until Wednesday, May 6, 1959, at 8.00 P.M.

ATTEST.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, Thursday, April 30, 1959.

The Special Committee on land use in Canada met this day at 10.30 a.m.
Senator ARTHUR M. PEARSON in the Chair.

The CHAIRMAN: Honourable senators, we have a quorum and the time is 10.30. We have with us Mr. Godwin who is Chairman of the Ontario Forest Industries Association.

Mr. Gordon Godwin, Director, Ontario Forest Industries Association:

The CHAIRMAN: Mr. Godwin, would you mention the names of the others in your party who are there?

Mr. GODWIN: I shall be pleased to do so, Mr. Chairman. May I make a slight correction. I am a Director of the Canadian Forest Industries Association. I am Chairman of the Information Committee and the leader of the delegation here this morning.

The gentlemen with me, and I shall introduce them in the order in which they are sitting, are Mr. J. B. Matthews, Mr. S. F. Rook, Vice-President of Ontario Forest Industries Association; Mr. J. W. McNutt, Past-President of the Association; Professor D. V. Love, of the University of Toronto; Mr. C. R. Mills, Manager of the Association; and Mr. D. Rogers, a Director of the Association.

The CHAIRMAN: Thank you. In regard to yourself, Mr. Godwin, could we have some information as to your qualifications—who you are, and such like, and how you arrived at this position.

Mr. GODWIN: Mr. Chairman, I am a professional forester and a member of the Ontario Professional Foresters Association. I am a forestry graduate from the University of Washington, Seattle, U.S.A., although I was born a Canadian. I have been associated with the forestry industry and have been associated with the forest industries for the last twenty-five years. I am presently Woodlands Manager, Ontario Division for The Ontario Paper Company.

The CHAIRMAN: Thank you. Whenever you are ready will you read the brief. You may sit if you prefer.

Mr. GODWIN: Mr. Chairman, thank you for the opportunity of sitting. There are some 10,000 words in this brief, which I shall present with the greatest possible dispatch, and it will be of assistance if I can sit this morning.

The CHAIRMAN: Would you prefer to answer questions as we go along, or would you rather be asked questions later?

Mr. GODWIN: I would suggest that we go through the whole brief, and that notations be made, and that the questions be asked at the end. The brief is entitled "Forestry Aspects of Land Use in Ontario."

INTRODUCTION:

The term "land use" is popularly applied to the study of land management undertaken with the object of outlining the uses of land which will yield the greatest return to the greatest number in the long run. Wise land use means

the management of the land to provide for the requirements of present generations without causing undue deterioration of the land and without destroying its future productivity. It is necessary in industrial and urban development to utilize the land in such fashion that its productivity in terms of vegetative production is virtually destroyed. Wise use demands that such destruction of productivity be kept at an absolute minimum.

The problems in land use concern developments in land management which tend to (a) needlessly destroy the agricultural or forest productivity of the land, or (b) result in the inefficient use of the other factors of production—labour, capital and enterprise, or (c) result in the multiple use of land where the uses are incompatible.

Certain of the problems involved in land use in Ontario are apparent in limited areas only because of population density, soil type or forest conditions. It is therefore necessary to consider the land use problems as they relate to specific regions of the Province. This brief is not meant to be exhaustive but certain problem areas are identified and broadly defined in order to provide concrete examples for consideration.

Where discussion of the problem leads to a logical solution a recommendation to the Committee has been included. The primary objective of this brief is to place before the Committee all pertinent information at the disposal of the O.F.I.A. with the full anticipation that this can be used more effectively by the Committee in this broad investigation of the subject than by any group covering only limited aspects of the situation.

THE FOUNDATIONS OF EXISTING LAND MANAGEMENT CONDITIONS: (1) (2) (4)

Mr. Chairman and honourable senators, the bracketed numbers have reference to a bibliography at the end to which these relate.

Seigniorial grants under the French regime of the 17th and early 18th centuries contained one clause of significance in land use to the effect that the tract of land included in the grant be cleared and inhabited. A reservation of oak trees "for the building of vessels" was the only limitation to land clearing and aside from this there appears to have been no attempt to classify land.

The British in 1763 reserved lands supporting any considerable growth of white pine, the species then favoured for masting for the Navy. This appears to have been the first attempt at land classification and it was, of course, based on the forest cover rather than the land potential.

In the early 19th century, England's timber importation duties favoured colonial timber. This encouraged the production of red and white pine timber and by 1826 the previous reservations were largely forgotten except that pine, on land disposed of for agricultural purposes, was reserved to the Crown. A feeble attempt was made to improve forestry practice by the introduction of a diameter limit which prohibited the cutting of small trees. In the generally over-mature forests of large trees which prevailed at the time it is probable that the diameter limit was of no significance in the management of the forest land.

The early licences to cut timber were disposed of annually by public auction with specified upset prices for the timber. To avoid the Crown charges thus applied to the timber many of the early lumbermen took out grants of wild land ostensibly for the purpose of settling. During the period 1763 to 1825 a total of 13 million acres were granted although the population increase was less than 150,000. This unrestricted granting of land was undesirable as it prevented a fair revenue return to the Crown and left the

land unproductive. The attainment of responsible government in 1838 put the administration of the land in the hands of the elected representatives of the people. Specific instructions were issued respecting the disposal of Crown timber but there is little in the proceedings of those days to suggest that there was any appreciation of the desirability of managing the forest for continuous timber supply.

About mid-19th century an intensive study was undertaken by the Government to compare the advantages and disadvantages of the Canadian and United States systems of timber disposal. In Canada ownership of the land was retained in the Crown, the timber only being sold, and a ground rent was imposed to limit the area in one ownership. In the United States land was sold at public auction for an upset price of \$1.25 per acre with no limit on the quantity of land which one individual could acquire. It was claimed that the U.S. system led to considerable monopoly and was rejected by the Committee making the investigation.

In the years immediately preceding Confederation there was much discussion concerning the desirability of maintaining non-agricultural lands in permanent forests. Farsighted men of the day understood that the principal danger to the stability and permanency of the lumbering industry was the opening up for settlement of areas adapted to forest production but not agricultural development. Unfortunately, in the period of rapid development following Confederation, the enthusiasm for a more scientific management of the land and a strict discrimination between cultivable and non-agricultural land, so evident in the preceding period, largely disappeared. Regulations permitting settlers to cut timber for sale on their lots, which operated as an inducement to settle upon land which was mainly valuable for its timber, were largely responsible for the establishment of pseudo-agricultural communities on non-agricultural land.

Failure to discriminate between agricultural and forest land led to frequent clashing of interests between the settler and the lumberman. The settler was dissatisfied because the pine on his farm was reserved to the Crown and was cut by the lumberman. The lumberman was dissatisfied because in many areas not suitable for agriculture the settler took up land solely for the exploitation of the timber. Cooperation between the settler and the lumberman, which could have resulted in benefits to both groups, was often lacking. Nonetheless, the road developments of the lumberman and the farm produce and labour supplied in the remote forest areas by the settler contributed materially to the rapid development of the country.

Forest fires were recognized as the cause of serious losses of timber early in the history of the lumbering era but not until 1878 did legislation provide for the punishment of anyone found guilty of starting fires. In 1885 the first fire rangers were appointed.

Some appreciation of the need for scientific forest management became apparent in 1883 when the first Clerk of Forestry was appointed. In the early stages the forestry work was directed mainly toward the education of the farm population respecting the value of forests in agricultural areas and the need for reforesting certain classes of land.

In 1897 a forestry commission was appointed to study means of restoring and preserving the growth of white pine and other timber trees upon the forest land of the province. The commission recommended among other things that areas unsuitable for agricultural settlement be set aside and kept as permanent Crown forest reserves. This recommendation was provided for in the Forest Reserves Act of 1898 and implemented to the extent that some 16,000 square miles of forest reserves were set up.

Unfortunately, this legislation was too late to be effective in preventing the tragic denuding of millions of acres of submarginal agricultural land in the southern part of the province.

When the agricultural lands of the clay belt were discovered in 1900 and this region was opened for settlement, considerable precaution was taken to assure that forest and mineral bearing townships were not opened for agricultural use. If a township possessed no more than 50 per cent of arable land it was reserved for the production of timber crops. The stated policy of the Ontario Government at that time (1911) was "to require that land shall be used for the purposes for which it is best suited".

By 1911 eight forest reserves and two parks had been established "so as to preserve it (the forest) and hold it for the benefit of posterity". The total area of these reserves amounted to twenty thousand square miles containing large quantities of pine and other timber. (3)

In this era 1900-1930 the authorities concerned with the administration of the forest lands were largely preoccupied with the protection of the forest from fire. The expenditures for forest fire prevention and suppression jumped from \$8,000 in 1885 when the field organization was established to \$300,000 in 1910. This early nucleus has been expanded until today the province claims to have the largest and best equipped organization of its kind in North America. In 1957 the cost of forest protection against fire, insects and disease was \$8,237,000, most of which was spent on fire protection.

Expansion of the pulp and paper industry in the 1920's rapidly increased the use of spruce and balsam. In an effort to provide for a continued supply of raw material for this industry the Government in 1929 passed the Pulpwood Conservation Act. This act attempted to devise some general plan covering the timber limits of each company "to place the pulpwood supply of Ontario on a sustained yield basis so that the industry may have an assured source of supply".

The depression of the 1930's resulted in a drastic reduction in wood demand by the pulp and paper industry. Many companies found themselves in financial difficulties. Funds were not available for the carrying out of the necessary surveys and planning. Following the depression, World War II resulted in a period of labour shortage and still the necessary work could not be done. In 1947 The Forest Management Act was passed. It provided for the preparation of forest management plans in much the same fashion as the Pulpwood Conservation Act but included all licensees. The Pulpwood Conservation Act which was repealed in 1952 was never effectively implemented. Under favourable social and economic conditions planning for more effective forest management would doubtless have gotten under way in the early 1930's.

In 1952 the Forest Management Act was repealed and its pertinent sections included in The Crown Timber Act, 1952 under which the forest land of the province is presently administered. This latter act provides among other things that the Crown lands held by licensees shall be kept productive and managed according to a plan approved by the Government. This act has been implemented to the extent that all major licensees in the province have submitted the plans as required. The forestry procedures involved in keeping the land productive are in various stages of development but a good start has been made.

The land use problems of Ontario have resulted from errors both of commission and omission. The development of agricultural communities on land incapable of yielding returns comparable to those which could be re-

covered in other areas or other lines of endeavour which resulted from the failure to identify the difference between agricultural and non-agricultural land was an error of commission.

The error of omission has been the lack of endeavour in land classification.

The first step appears to be the correction of these major errors.

Land Classification: The granting, leasing and sale practices of the past, some of which may now in retrospect be judged to have been unwise, have resulted in the present general land distribution and use indicated in Table (I).

Table (I)

Land Classification and Land Use 1.

	Million Acres	% of Total Area
Forest Land (Crown Owned)		
Productive		
Leased to forest industries	48	21.8
Unalienated	60	27.2
Non-productive		
Unalienated	31	14.1
Forest Land (Privately Owned)		
Productive		
Farm Woodlots	3.8	1.7
Other Woodland	7.8	3.6
Farm Land (excluding farm woodlots)	16.2	7.4
Other Land (barren, urban, etc.)	53	24.1
Total Land Area	220	100.0

1. Source: Ontario Department of Lands and Forests, Forest Resources Inventory.

The areas in the various categories bear no relationship to the importance to be attached to the category. For instance, one of the largest single categories labelled "other land" is principally open barren and tundra. While this area may be of considerable importance in the land use deliberations of the future, it is not of any major importance at the moment. Conversely, the smallest unit—the farm woodlot category—is, acre for acre potentially the most important wood producing land in the Province and may well be serving a tremendously important function by providing protection of soil and water resources as well as much needed recreational and aesthetic benefits.

Blanket statements concerning problems in the management of the vast areas indicated in the table above would be meaningless. To say that the recreational use of forest land conflicts with the use of that land for the production of wood products would be untrue if it were assumed that the conflict applied to the entire 48 million acres under lease to the forest industries. At the same time it must be appreciated that such conflict does exist in certain areas and under certain conditions. The same applies to many alternative land use possibilities. Under certain circumstances the uses conflict; in others they may be complementary.

Land use surveys are the first step in providing information on the uses of specific areas of land, and on problems, or prospective problems, arising from existing use.

Land Use Classification (7): There are two basic approaches to land use classification and planning:

- (1) To record existing land use.
- (2) To assess land use potential.

The first of these is primarily an objective approach. The second is subjective in that although an assessment is made of the physical attributes of the land, these are interpreted in terms of the current yield that might be expected from various crops and the value of these crops compared with the value of the land for other purposes, industrial, recreational, etc.

In Ontario there are three major uses of land, forest (including waste land), agricultural and urban-industrial. There are, of course, other important uses such as recreation and in certain areas such as Algonquin Park forest and recreation constitute an important example of multiple land use.

Historically, the first major development was the clearing of the forest for the growing of agricultural crops by the early settlers. The area so cleared was concentrated in southern Ontario south of the precambrian shield. During the present century, urban-industrial development has increased, particularly since 1945. Significantly, Ontario's population has more than doubled in the past fifty years.

Population of Ontario (6):

1901	1945	1956	projected	
			1965	1975
2,183,000	4,000,000	5,405,000	6,600,000	8,200,000

The urban-rural distribution of the population has also changed from Urban 42.9%, Rural 57.1% in 1901 to Urban 70.7%, Rural 29.3% in 1951.

Associated with this increase in population there has been a decline in the area of land under agricultural use.

Total Area (acres) of Agricultural Land (6):

1901	1931	1956
21,349,524	22,840,898	19,879,646

Despite this reduction in agricultural land area, the productivity in terms of net farm income has increased markedly as is shown by the following figures.

Net Farm Income (thousands of dollars) (6):

1926	1956
164,003	405,561

During this same period the wholesale price index for farm products in Eastern Canada increased 54.6%. Thus the increase in net farm income suggests that the productivity per acre has greatly increased. This improved productivity is due to a series of advances such as the development and use of machinery, improved insect and disease control and the use of fertilizers. All these advances are dependent in part on local increased urban-industrial development.

The classification of the land as to its present or potential use is not an end in itself. The purpose of such classification is to provide a basis for wise action in the planning of expansion in any form of land utilization. The effective use of the land classification, once completed, will depend on many things including, economics, legislation and public opinion concerning the rights of owners over property. The land classification is a technical job; its effective use will require a well conducted program of public education in natural resource management.

In considering ways and means to effect a program of land use classification and planning from the forestry viewpoint certain aspects of the Canada Forestry Act, 1949, are of particular interest. This Act enables the Federal

Government to enter into agreements with the provinces and provide federal financial assistance with a view to promoting sound management of the forest resources. Section 6, Paragraph (a) sets out in some detail the scope of the Act.

"The Minister may with the consent of the Governor-in-Council enter into agreements with any province for the protection, development or utilization of forest resources, including protection from fire, insects and diseases, forest inventories, silvicultural research, watershed protection, reforestation, forestry publicity and education, construction of roads and improvements of streams in forest areas, improvement of growing conditions and management of forest for continuous production".

In January 1952 a Federal-Ontario Forestry Agreement was executed providing for cooperation in two fields—forest inventory and reforestation. In 1957-58 forest fire protection was also included. The two fields of inventory and reforestation are, however, particularly pertinent in the present discussion of land use. (8)

Forest Inventory: The methods used for forest inventory are of three types depending on whether the area surveyed was considered as inaccessible northern forest, accessible forest or southern Ontario woodlots. For both accessible forest and southern Ontario woodlots aerial photographs were used. For the accessible forests details (forest types, etc.) have been transferred from the photographs to base maps. For the southern Ontario region instead of planimetric base maps, photo mosaics were prepared. These photographs provide an immediate and accurate delineation of the major land uses at the time the photographs were taken. In addition to the usefulness of the aerial photos in mapping all major land uses, they are also valuable since they can be used to separate out the major landforms or landtypes, soils, roads, etc., and thus provide basic information in the establishment of potential land use values for an area.

Thus, although under the terms of the Canada Forestry Act, only forest land and its management were considered, the first step in forest inventory—aerial photographic coverage—is also the first step in a land use survey for both present and potential use. In addition, in southern Ontario where land use pressures are more intense, the use of photo mosaics would expedite the making of a land use survey.

Reforestation: Two major phases of reforestation work have received support under the terms of the Federal-Ontario Agreement. They are (a) nursery stock production and (b) Crown Land planting.

The development of new nurseries to increase the production of trees for planting has taken place entirely in northern Ontario and is associated with increased Crown Land planting in this part of the province. Total Crown Land planting has increased from 6 million trees planted in 1951 to 11 million in 1955 and it has been predicted that total annual needs may reach 60 million trees.

In association with this increase in Crown Land planting the Ontario Department of Lands and Forests has developed a section to deal with the classification of land to be reforested. The primary purpose is to rate areas of land in terms of potential forest growth and regeneration. Thus, this presents an example of a potential forest land use survey, although the broader framework of a land use survey is still non-existent.

AGRICULTURE AND FORESTRY

Agricultural Use of Land: Land which can be profitably managed for agricultural use would not logically be devoted to forest production except under unusual circumstances. On land which is incapable of producing agri-

cultural crops economically forest use is the major alternative in Ontario. Extensive areas of the Province do not fall conclusively into either category. It is in these areas that the agricultural use of the land may persist largely as a result of the inertia of the local land operators.

In an effort to delimit the areas which might be considered to be in the marginal bracket of land use, i.e. inconclusively designated as agricultural land, the statistics concerning land and farm gross cash income were studied. Figure (1) illustrates graphically the apparent correlation which exists between gross income per acre per year and farm size and gross income per farm per year and farm size. On the same graph is indicated the regions of the province for which these statistics apply (6). Without enquiring into the conditions which cause this apparent correlation it is evident that the agricultural land of the Province falls into two broad categories which can be generally described both geographically and economically. The regions which produce a gross income per acre per year in excess of \$40.00 and a gross income per farm of \$5,000 are generally limited to south-western Ontario. The less productive land, which yields generally less than \$40.00 per acre and, in spite of the larger farms, yields less than \$5,000 per farm per year, is located in the eastern, central and northern parts of the Province.

Mr. Chairman, would you care to refer briefly to the graph? You will see on the bottom ordinate the gross income per farm per year, and on the vertical ordinate the figures represent the area in acres per farm. On the same ordinate are shown various geographic regions of the province. On the top line there are figures showing gross income per acre per year. It points out very clearly what happens with this geographic distribution of farming. The first area is Niagara: the little round symbols represent the gross annual cash income on the farm, and the crosses represent the gross annual cash income per acre. You will note in the Niagara area the gross income per acre per year is around \$57, and if you drop down to the Lakehead-North Western Ontario, area you will see the corresponding figure is \$15.

Senator WALL: The gross annual cash income per farm is an average figure.

Mr. GODWIN: Yes.

The CHAIRMAN: This is a very interesting chart.

Mr. GODWIN: I will continue with my brief.

In any region there will be a wide range of soil condition included within the cultivated land area. Some of the land will be submarginal for the production of agricultural crops and some will be supramarginal. In areas where the general level of production from the land is high, submarginal land will be present but inconsequential. In areas where the general level of production is low submarginal land will be present to an important degree. The statistics cited above suggest that there is a considerable area of submarginal land under cultivation in the agricultural regions outside of southwestern Ontario.

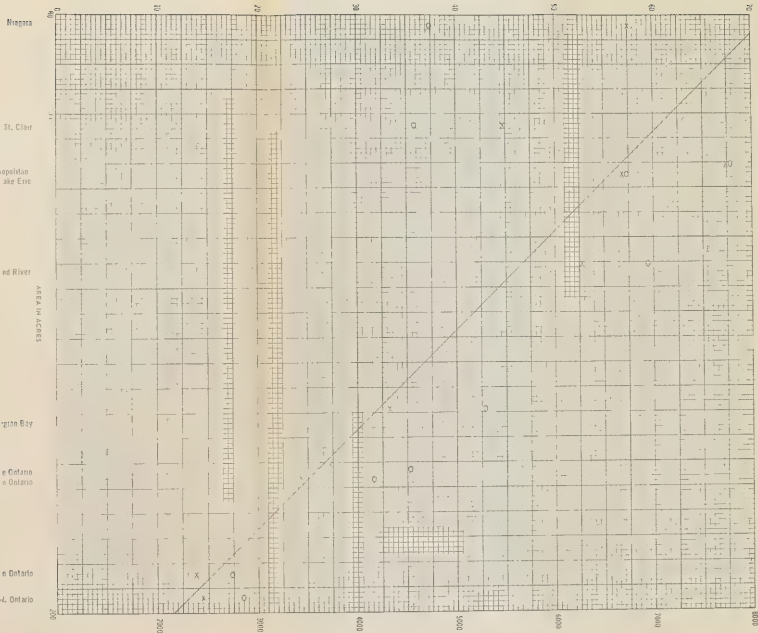
The results of attempting to farm these submarginal lands are to (a) deplete the meagre potential for vegetative production which they possess and (b) cause a waste of the labour, capital and enterprise devoted to this production.

Determination of the exact location and extent of the submarginal land must be the subject of considerable study on the ground. The evidence suggests that within the eastern, central and northern regions of the Province a considerable acreage of land of this calibre is being used for agricultural purposes.

The Forest Use of Land Presently Under Agricultural Crops:

Areas which are unsuited economically to the production of agricultural crops can be converted to forest production provided full recognition is given

Gross Income per Acre per Year



Gross Income per Farm per Year

to the unique character of the forest crop. Following are listed the factors which must be understood fully by those undertaking such a conversion.

1. The productivity of land unsuited for agricultural can be maintained and improved by forest cover and may thus be held for use at a later date for agricultural purposes.

2. Once in possession of a covering of merchantable timber such land will yield a positive net return to investments of land, capital, labour and enterprise devoted to the maintenance of the crop.

3. During the period from the time of conversion to the appearance of the merchantable crop an annual deficit on the operation must be expected and provision for it must be made.

Much of the submarginal agricultural land in Ontario is well within the market areas of established mills and has a positive forest potential. This land is accessible now and will largely remain so since it is intermixed to some extent with areas of agricultural, industrial or recreational development.

The major problems involved in the conversion of the submarginal agricultural land to forest production appear to be (a) the non-productive period from the time of initiation of the conversion to the appearance of the merchantable tree crop—a period of from 25 to 80 years, (b) the land ownership pattern; the owner-operator of a submarginal farm may be more difficult to extricate than any other bankrupt operator—we are inclined to dispossess a submarginal operator in any business except farming, (c) the lack of credit which might permit the incorporation under one owner of a sufficient area of land to provide the owner with a satisfactory net income from the sale of forest products, (d) taxation policies which discourage rather than encourage production of timber crops.

Because of the small economic return per acre from the cultivation of forest crops compared to the agricultural return from supramarginal agricultural land, forest farming units must be larger than agricultural farming units. The exact size required would depend upon the soil type and the timber stand but on the better sites areas of from 400 to 600 acres would provide a gross cash revenue of up to \$5,000 per year once the forest was established and at least part of it raised to merchantable size.

The size of the farm unit is increasing. Conversion from agriculture to forestry, in the areas where such conversion would be advantageous, requires an acceleration of this tendency which can only be accomplished by providing the facilities required including inexpensive credit, realistic taxation policies and technical advice to forest farmers.

Farm Woodlots:

Within the agricultural areas of the Province there are 3.8 million acres of land devoted to the production of forest crops (Table I). Some of this land is submarginal agricultural land suited only to forest use. At least some of the land is supramarginal agricultural land which has been reserved for the production of wood more because of the convenience of having a source of fuel and lumber than because of the financial advantage of the forest crop over the farm crop from the same land.

In the management of the farm woodlot maximum yield can be obtained only if adequate high grade trees are maintained on the ground at all times. This means that the woodlot owner must resist the temptation to harvest the timber as soon as it becomes merchantable. He must wait for the valuable additional increment which makes the operation profitable.

This characteristic of the farm woodlot makes it extremely difficult to attain the most economical management. The existence of a merchantable crop on the ground is a tremendous temptation to the owner to convert it into cash

at the first sign of financial stress. The absence of low cost loans makes the present cash value of the woodlot doubly attractive. It is, of course, true that if the owner must pay 10% interest on loans then a woodlot, yielding less than 10% return on the capital represented by the timber, will be more valuable in the form of cash and liquidation of the woodlot may result.

In general, the more productive the agricultural land the more financially independent will be the owner of the land. Thus the farmer of supramarginal land who has but little dependence on his woodlot for financial assistance is in the best position to maintain the woodlot in the condition that will yield the greatest return. The farmer of submarginal land who needs the maximum economic return from his woodlot is not generally in a position to forego the liquidation of the growing stock required to produce the maximum yield. The absence of inexpensive credit for the near marginal and submarginal operator severely limits the opportunities of recovering the full economic potential of the woodlots associated with many of the agricultural units.

In an attempt to encourage the better management of farm woodlots and thus permit the owners to more fully recover the economic potential of their properties interested groups have sponsored the Tree Farm Movement.

The Tree Farm Movement (10):

It was not until 1953 that the national program now known as Tree Farming was initiated. As of December 1, 1958, there were in Ontario 236 tree farms covering 141,000 acres. This represents almost half of all tree farms in Canada covering about a quarter of the total tree farm area.

The fundamentals of the programme are:

1. To increase by educational means the number of acres under intentional management for wood crops.
2. To improve the financial yield of land now devoted to the production of trees, and,
3. To encourage the conversion of submarginal agricultural land to the production of tree crops.

To qualify as a tree farm an area must support an adequate stocking of desirable forest trees of good form or, in the case of plantations, the trees must be plainly visible above the summer level of weeds and grasses.

The Tree Farm movement is sponsored by the Canadian Forestry Association working through National Tree Farm Committees operating in seven of the ten provinces. This is an entirely voluntary national movement which does not provide any special privileges under Federal, Provincial, or Municipal Tax Laws, nor do the owners receive any special consideration respecting advice from Provincial extension foresters.

The national programme has many worthy attributes which could result in a use of certain classes of land which would yield a positive contribution to the national economy as well as to the individual owner. Under existing circumstances much of this land is now a liability.

In the voluntary tree farm programme it appears that the lack of any financial incentive to certify land is a deterrent to extensive adoption of the plan. The possibility of the Federal Government introducing some incentive by the alleviation of income taxes on revenue secured from the tree farm should be explored.

Wood Production and the Recreational Use of Forest Land

The intensive management of forest land for the production of the maximum good for the greatest number suggests the integrated use of the land for the production of wood products which maintain the forest based industries while the land is concurrently being utilized for recreational purposes.

The development of the lumber industry and later the pulp and paper industry was based on the existence of vast areas of mature to over-mature coniferous forests. In the process of expansion of these industries extensive areas of these forests were liquidated. Accordingly, the forest industries have always been associated with the liquidation of mature forests; it was further assumed that these industries favoured this situation and that forest destruction and forest industry were synonymous.

The liquidation of mature forests is a mining operation with all the associated evils including discontinuous operations, increasing costs as accessible material is used up, accelerated depreciation of capital investments such as roads and plant and a host of other undesirable features associated with temporary operations. Thus while it is obviously true that the operations of the forest industries have in the past been associated with the liquidation of mature to overmature forest it must not be assumed that this was the choice of the industries concerned. This situation was forced on the industry by the condition of the forest.

Extensive area of even-aged timber so susceptible to destruction by wind, fire, insects or disease, is the forest condition least likely to be selected by the informed owner of a forest industry. The opposite is the ultimate in forest organization; namely that the forest contain representatives of all age classes of trees, not necessarily intermixed on every acre but at least reasonably well distributed over the forest. This provides for a continuous crop and reduces to a minimum the capital investment in timber and the dangers of forest destruction by mechanical or biological factors.

Attainment of the ideal forest conditions is dependent on reasonable accessibility to the land, satisfactory regeneration following logging, stable market conditions for forest products and protection against fire.

Conditions which favour the development of permanent and progressive wood-using industries also favour the use of the forest for recreational purposes. The latter requires that the forest be accessible and that it be protected against fire, for obvious reasons. The regeneration of the forest crop and the prevention of the relatively stagnant biological conditions associated with maturity and over-maturity of the forest are as important for the maximum recreational use of the forest as for maximum wood-production. Extensive areas of uniformly overmature timber means eventually extensive areas of blowdown or extensive cutover area; thus the balanced age distribution is a distinct advantage to the cottage owner or camper. The age distribution in the timber is also an important factor in wildlife population of an area. A well balanced distribution of age classes, from recent cutover to mature forest, encourages a denser more consistent and yet more varied wildlife population than the extensive even age conditions associated with uncontrolled forest management.

It is evident from the foregoing that, basically, there should be no conflict between those who use the forest as a source of wood and those who use it for recreational purposes. While the basic requirements may be similar there appear to be some rather fundamental differences of opinion in specific cases. These include the desire, on the part of the recreational user of the forest, to preserve the mature and overmature forest for aesthetic reasons ignoring the fact that the forest is not a static biological entity but one in which change is a necessary and evident characteristic.

Again the recreational user of the forest under certain circumstances may demand that game be protected against hunting and predatory animals to the extent that excessive populations of certain animals are built up. Two serious and undesirable conditions may result from following this procedure. Firstly, the food supply of the animals may be depleted to the point where the entire population is weakened and may fall prey to disease. Secondly, if

the animal protected is a browsing animal such as deer, moose or rabbit, the dense population will destroy all edible vegetation within reach. The growing of commercially valuable forest trees is virtually impossible under such conditions and areas which might quite practically be devoted to multiple use—the production of wood products and for recreation—are limited to single purpose production.

Additional research in the field of wildlife management is needed so that the best means of controlling wildlife populations may be found. The education of the public to the point of appreciating the advantages of scientific management of the forest is also required. Some organizations, including the Canadian Forestry Association, the Ontario Forestry Association, the Ontario Forest Industries Association, governments, and the forest industries, are already involved in this work. Much more must be done, however. Public education is an essential feature of any effective land use programme.

Improved Land Use Through Forest Management:

The forest-based industries of the Province provide the impetus for improved forest management. It is the anticipated use of the forest and its wood products that provides the economic incentive to keep the land productive. At times and under certain circumstances, however, a rigid economic appraisal does not justify the action which a broader evaluation of land use dictates. Under such circumstances the intangible benefits if given fair consideration may tip the scales in favour of action. It is for this reason that the problems of land use must be studied on the broadest possible terms and the full import of all factors given due consideration.

The forest-based industries of the Province may be classified into two groups; the one which utilizes the wood produced from the forest, and the other which utilizes the forest in its natural state. The former includes the lumber, pulp and lesser wood products manufacturing operations. The latter is a category in which both tangible and intangible benefits accrue to the forest user and include tourism and public recreation as well as the hydro-electric industry which depends on the adequate protection of soil and water.

The Forest-based Industries:

The one hundred million acres of productive forest land in the Province provide wood for the more than 4,000 establishments based on this resource. The total volume of material utilized in the wood-using plants averages in excess of half a billion cubic feet per year over the past ten years; the general trend appears to be in terms of a gradual increase in volume utilized (12).

The manufacture of this wood into useful products absorbs about 12% of the materials used by all manufacturing industries in the Province. These industries also account for more than 14% of the total expenditures in the Province for capital and repair and thus make a material contribution to activity in the capital goods industries.

The forest-based industries in Canada make a very substantial contribution to the economy through the earning of foreign currency. More than 30% of the value of all exports from Canada emanate from the wood-using industries and originate in the forest resource. Although detailed statistics are not available by provinces it appears that Ontario would contribute about one third of the total or 10% of the total of Canada's value of exports.

The following table illustrates most effectively the relative position of Ontario in the forest-based industries of Canada.

The Forest-based Industries, Ontario and Canada

Principal Statistics,¹ 1955

	Ontario	Canada (\$'000's)	Ontario as a % of Canada
Gross value of Production ²	1,456,583	4,521,553	32.2
Net value of Production ²	831,633	2,612,940	31.8
Persons Employed ²	130,825	436,787	30.0
Wages and Salaries ²	445,285	1,432,489	31.1
Materials Purchased ²	590,728	1,790,115	33.0
Capital and Repair Expend- itures, etc.	139,400	461,400	30.2
Exports ²	N.A.	4,281,784	(Not available)
Corporation Profits before Taxes	N.A.	402,000	(Not available)

¹ SOURCE: Dominion Bureau of Statistics Publications.² Includes "Operations in the Woods". The Ontario figures for "Operations in the Woods" have been estimated by the Ontario Department of Economics.

You will note in the line in the right-hand column that Ontario's percentage in relation to the whole of Canada ranges from 32.2% to 30%.

Canada's contribution to the world production of wood, in all its many forms, is estimated at over 10%. In this field Canada stands third, next to United States and Soviet Russia.

Maintenance of the important position of the wood-based industries will depend in future less on the stocks of raw wood material provided at no cost by nature in the inaccessible areas of the Province and more on wood which can be produced by sensible use of the potential provided by the accessible land area. One of the most important problems is to distinguish between agricultural land and forest land and between forest land and waste land.

The Grouping of Forest Lands Based on Accessibility: (5)

The forest land of the Province may be divided into three broad areas based on accessibility and productivity as follows:

(a) the Southern Agricultural Area, (b) The Exploitable Forest Area, and (c) the Potentially Exploitable Area. These areas may be briefly described geographically as follows: The Southern Agricultural Area covers all of Ontario south of a line from Port Severn, on the south end of Georgian Bay, to Renfrew in the Ottawa Valley; the Exploitable Forest Area is bounded on the south by the Agricultural Area and on the north by a line approximating the 51st degree of latitude; the Potentially Exploitable Area covers the remainder of the Province north of the Exploitable Area.

The forest and forest land of each of these areas have certain unique features which require some examination if a full appreciation of the problems involved in the management of this land is to be attained.

Statistics concerning the Southern Agricultural Area and the Exploitable Forest Area are presented in Tables (II) and (III) respectively. For the Potentially Exploitable Area detailed statistics are not available as to timber age and volume.

These three broad regions may be compared with respect to certain factors of fundamental importance respecting land use. These include accessibility, forest condition, destructive agencies and timber inventory, allowable cut and actual utilization.

Accessibility: The Southern Agricultural Area, which was developed for its agricultural potential is 73 per cent privately owned land and, due to its dense population and high productive capacity, is highly accessible.

The Exploitable Forest Area, having been developed for the liquidation of mature forest crops, has a much less stable and less dense population than the Agricultural Area and road development is less intense. The ownership of the land in this area has been largely retained by the Government—92 per cent of the area is Crown Land.

The Potentially Exploitable Area is virtually 100 per cent Crown Land and is almost completely inaccessible by road or railroad.

TABLE II
PRODUCTIVE FOREST LAND AND THE TIMBER VOLUMES OF THE SOUTHERN AGRICULTURAL AREA¹
TIMBER VOLUMES (1,000,000's cu. ft.)

	Area 1,000's Acres			Percentage of Area by type and age	Crown Lands		Private Lands		All Lands		All Species
	Crown	Private	Total		Hardwoods	Softwoods	Hardwoods	Softwoods	Hardwoods	Softwoods	
Mature Forest											
Conifers.....	6	18	24	—	4	7	9	27	13	34	47
Hardwoods.....	87	348	435	8	215	13	853	26	1,067	39	1,106
Mixedwoods.....	18	53	71	1	30	22	83	51	113	73	186
	111	419	530	9	249	42	945	104	1,193	146	1,339
Immature Forest											
Coniferous.....	60	262	322	6	21	94	90	360	111	453	564
Hardwoods.....	675	1,610	2,285	39	767	61	2,047	115	2,814	176	2,990
Mixedwoods.....	562	1,008	1,570	27	477	405	870	648	1,347	1,054	2,401
	1,297	2,880	4,177	72	1,265	560	3,007	1,123	4,272	1,683	5,955
Young Growth											
Coniferous.....	3	31	34	1	No volume content recognized						
Hardwoods.....	110	282	392	7							
Mixedwoods.....	25	115	140	3							
	138	428	566	11							
Reproducing Forest..	33	53	86	1							
All-aged Forest											
Hardwoods.....	5	320	325	5	9		636	19	646	20	666
Mixedwoods.....	4	106	110	2	4	3	128	62	132	65	197
	9	426	435	7	13	3	764	31	778	85	863
Totals.....	1,588	4,206	5,794	100%	1,527	605	4,716	1,308	6,243	1,914	8,157

¹Source: Ontario Department of Lands and Forests, Forest Resources Inventory.

TABLE III
PRODUCTIVE FOREST LAND AND THE TIMBER VOLUMES OF THE EXPLOITABLE FOREST AREA¹
TIMBER VOLUMES (1,000,000's cu. ft.)

	Area 1,000's Acres			Percentage of Area by type and age	Crown Lands		Private Lands		All Lands		All Species
	Crown	Private	Total		Hardwoods	Softwoods	Hardwoods	Softwoods	Hardwoods	Softwoods	
Mature Forest											
Conifers.....	16,794	769	17,563	23	3,134	29,184	225	1,576	3,359	30,760	34,119
Hardwoods.....	2,511	373	2,884	4	6,825	721	885	71	7,710	792	8,502
Mixedwoods.....	12,582	745	13,327	17	16,428	13,789	1,307	844	17,735	14,633	32,368
Total.....	31,887	1,887	33,774	44	26,387	43,694	2,417	2,491	28,034	46,185	74,989
Immature Forest											
Conifers.....	10,836	426	11,262	14	1,620	14,328	95	610	1,716	14,938	16,654
Hardwoods.....	3,570	1,150	4,720	6	5,331	619	1,782	132	7,113	752	7,865
Mixedwoods.....	11,289	1,226	12,515	16	10,044	8,684	1,189	884	11,232	9,567	20,799
Total.....	25,695	2,802	28,497	36	16,995	23,631	3,066	1,626	20,061	25,257	45,318
Young Growth											
Conifers.....	3,437	92	3,529	5	No volume content recognized						
Hardwoods.....	1,854	549	2,403	3							
Mixedwoods.....	3,290	436	3,726	5							
Total.....	8,581	1,077	9,658	13							
Reproducing Forest..											
	4,680	391	5,071	7							
Grand Totals.....	70,843	6,157	77,000	100	43,382	67,325	5,483	4,117	48,095	71,442	120,307

¹Source: Ontario Department of Lands and Forests, Forest Resources Inventory.

It is perhaps important to note that in Table II the predominance of volume is in the item "Immature Forest," and that is a point which is brought up later in the brief.

You will notice that in Table III the predominance of timber is in the "Mature Forest" as opposed to the "Immature Forest".

The highly productive agricultural areas warrant intensive management so that an approach to full realization of the potential is attained. Due to the relatively slow growth of forest crops, land productivity in the northern areas is much lower than for the more productive land of the south. The intensity of accessibility which is entirely reasonable for the south is not justified in the north. The degree of accessibility should conform to the intensity of land management justified by the productive capacity.

In the Exploitable Forest Area it is evident that certain regions of the Exploitable Forest have been made more accessible than conditions warrant and a far greater area is suffering severely from inadequate accessibility.

The Federal Government is commended for its recent active participation in the projection of roads into those areas which are obviously inadequately serviced. Such activity should not be restricted to periods of high unemployment and low economic activity.

The Potentially Exploitable Area is of low priority as far as road construction is concerned because the land is of low immediate and potential productivity with extensive areas of stagnant stands and open muskeg separating the merchantable but slow-growing timbered areas.

Forest Condition:

Tables (II) and (III) indicate the broad age distribution of the timber stands in the Agricultural Area and the Exploitable Forest Area. This age distribution is a matter of significance in forest management and the difference between these two areas illustrates one effect of accessibility on land use.

Mature forests are relatively static biological entities. Growth of merchantable timber is at a very low level and may well be negative in over-mature stands. The presence of extensive areas of mature or over-mature forest means in general a very low level of use of the capabilities of the land. This is not to suggest that the forest should be harvested before it is mature. Such an approach prevents the realization of the productive capacity of the land by liquidating the capital investment while it is yielding the greatest interest return.

Sufficient mature timber must be available to provide for current wood requirements and additional areas must be of sufficient age to provide mature timber as it is required. For a perfectly balanced forest approximately one per cent of the area in mature timber is all that is required at any particular time. In the irregular distribution of ages typical of most Canadian forests a mature area of 10 to 15 per cent would be reasonable provided immature stands were approaching maturity.

In the Agricultural Area nine per cent of the productive forest land is classed as supporting mature timber; the comparable figure for the Exploitable Forest Area is 44 per cent. For the Potentially Exploitable Area detailed estimates are not available but it is generally believed that well over 75 per cent of the forest in this area is mature or over-mature.

The low efficiency with which the productive capacity of the land is being used in the two northern areas is indicated in these estimates of the proportion of mature and over-mature stands.

Failure to harvest these stands as they mature causes a loss of growth capacity. Yet at the same time, due to the inaccessibility of these mature stands, immature stands are being harvested from accessible areas and another form of growth capacity, is being sacrificed.

In the efficient management of forest land for maximum yield of the land's potential a well diversified yet well balanced distribution of timber ages is essential. This is advantageous not only to timber production but also to the use of the forest as a habitat for wildlife and for recreational use. Improved accessibility is the key to the attainment of this better arrangement of age classes in the forest.

Destructive Agencies:

The agents of destruction in the forest may be mechanical—fire and wind-throw—or biological—insects and disease. Each of these agents takes a toll annually and until a highly intensive use of the forest is justified by greater market opportunities these annual losses must be expected. In the interests of minimizing the losses, however, certain recognized precautions should be taken and where possible conditions which favour loss from these agencies should be avoided.

The age of the timber is an important factor in its susceptibility to destruction by the agencies listed above. In general, the older the timber the more susceptible it is to windfall and to attack by insects and fungi. Fire can be a serious cause of destruction at any age but is probably most devastating in young even-aged stands which have not reached seeding age.

As in the case of volume production from the land, the most advantageous age distribution for safety against destructive agencies is diversification of age with a minimum of mature and over-mature timber. Accessibility to the timber, permitting a wider dispersion of the annual cut and the harvesting of trees as they become mature, is an essential feature of the protection and effective utilization of the timber and the land.

Accessibility by road is also an important aspect of direct action in the event of fire or epidemics of insect or disease. Direct action to arrest the activity or to salvage damaged timber requires ready accessibility to the threatened or damaged trees.

Timber Inventory, Allowable Cut and Actual Utilization:

The inventory of timber volume which has been recently completed by the Department of Lands and Forests is summarized in Tables (II) and (III) for the Agricultural Area and the Exploitable Forest Area respectively. These estimates in themselves are interesting but of little actual significance to land use planning without some knowledge of the nature and extent of the growth and utilization of the timber.

Detailed statistics respecting the allowable cut of timber and its actual utilization are available for the Exploitable Forest Area and a summary of this information is included in Table (IV). Statistics for the privately owned lands of the Agricultural Area are believed to be very weak; this is a serious drawback to the intelligent planning of resource management in this region. A thorough investigation of the methods of acquiring statistics by the Dominion Bureau of Statistics, respecting the cutting of timber from private lands, would appear to be a responsibility of the Land Use Committee.

Sound planning in forestry does *not* require that the allowable annual cut be equal to the annual growth; in predominantly mature forest land units the annual cut exceeds the growth while in immature units the allowable cut is less than the growth. It may be assumed, therefore, that in the Exploitable Area where the mature forest predominates the growth is less than the allowable cut and, therefore, less than 1.42% for all species combined. This is an

extremely low rate of growth (average for north eastern United States, 4.2%) which may be explained in part by the predominance of mature timber in which net growth has virtually ceased. (13)

In the following table there is a misprint, I believe. It is listed as Table (VI), and it should be Table (IV). This shows the statistics on the total timber volume, which we have already seen in Table (III). The interesting aspect of it is that the allowable annual cut for hardwoods is 804,100,000 cubic feet; for softwoods, 773,400,000 cubic feet; all species, 1,577,500,000 cubic feet. The proportion of hardwood in the allowable annual cut is 51.0 per cent.

The actual annual cut of hardwoods in cubic feet is shown as 47,800,000 softwoods, 407,000,000; all species, 454,800,000.

The actual cut as a proportion of allowable cut in hardwoods is only 6.0 per cent. The actual cut in softwoods is 53 per cent of the allowable cut. For all species actual cut is 29 per cent of the allowable cut.

TABLE VI
EXPLOITABLE FOREST AREA:
CROWN LANDS

	Hardwoods (1,000's cu. ft.)	Softwoods (1,000's cu. ft.)	All Species	Proportion of Hardwood
Total Timber Volume..... (from Table III) (Gross Total Volume)	43,382,000	67,325,100	110,707,200	39.0%
Allowable Annual Cut..... (Gross Total Volume)	804,100	773,400	1,577,500	51.0%
Allowable Cut as a Proportion of Inventory.....	1.85%	1.15%	1.42%	—
Actual Annual Cut..... (Gross Total Volume)	47,800	407,000	454,800	10.5%
Actual Cut as a Proportion of Allowable Cut.....	6.0%	53%	29%	—

Source: Ontario Department of Lands and Forests, Forest Resources Inventory.

The allowable cut of hardwoods although greater than that of the softwoods is produced by a lesser growing stock indicating a faster rate of growth. This is due in part to the higher proportion of the hardwood and mixed wood types being in the immature age class as compared with the conifer types (see Table (III))—another illustration of the limited growth capacity of the mature forest.

The most serious situation depicted by Table (IV) concerns the lack of utilization of the hardwoods. With but six per cent of the allowable cut being harvested this class of material is accumulating on the ground to the exclusion of the more desirable softwoods. This is an extremely serious situation with obvious dire consequences in the effective use of our forest land. Two avenues of attack appear to offer some chance of improving the situation, (a) increased activity in research relative to the utilization of hardwoods and their eventual volume reduction by utilization, and (b) improvement in harvesting technique by which coniferous regrowth can be encouraged and undesirable hardwoods destroyed by chemical or mechanical means. Active support for research in the fields of forestry in which solutions to these problems may be found might well be considered by the Committee.

Some Requirements for Improved Land Use:

The study of land use represented by this Brief suggests the following specific requirements which are stated briefly below; greater elaboration may be found on the pages indicated.

1. Land use surveys, to provide information on the uses of specific areas of land, and on problems or prospective problems arising from existing use, are urgently needed. pp. 10, 14, 16-17, 27.

2. The effective use of a land classification as an aid to wise planning requires a well conducted and continuous programme of public education in natural resource management. pp. 12, 13, 24.

3. Conversion from agriculture to forestry, in the areas where such conversion would be advantageous, requires an increase in the size of the farm unit which can only be accomplished by providing the facilities required including inexpensive credit, a reasonable forest insurance programme and local encouragement and advice. pp. 18, 19, 20.

4. The possibility of the Federal Government introducing some financial incentive to private land owners to certify land under the tree farm programme requires investigation. p. 21.

5. Additional research in the field of wildlife management is needed so that the best means of controlling wildlife populations may be found. p. 24.

6. The possibility of determining quantitatively the desirable degree of accessibility for areas of varying tree growth and recreational potential is one which requires investigation. p. 31.

7. The Federal Government is commended for its recent active participation in the projection of roads into those areas which are obviously inadequately serviced. Such activity should not be restricted to periods of high unemployment and low economic activity. The efficient use of the forest lands of the north requires, as a first step, improved accessibility. pp. 31, 32, 33, 34.

8. Statistics respecting forestry activity on privately owned land is essential to the planning of resource management of such lands. The present methods of the Dominion Bureau of Statistics in this regard should be revised with the object of acquiring more complete information concerning timber volume, growth and utilization on privately owned land. p. 35.

9. Increased support for research in the field of forestry related to (a) the utilization of hardwoods and (b) improvements in harvesting methods and techniques to accomplish increased coniferous regrowth on cutover areas, is required. p. 37.

Literature Cited:

- (1) A History of Crown Regulations, Ontario Department of Lands and Forests. Reprint from the annual report of the Clerk of Forestry for the Province of Ontario, 1899.
- (2) Revised Statutes of Ontario, 1937, 1950.
- (3) Ontario's Natural Resources, by Mr. Aubrey White, Deputy Minister of Lands and Forests, Ontario. Canadian Forestry Association Reports, 1911.
- (4) Annual Reports of the Minister of Lands and Forests of the Province of Ontario.
- (5) Unpublished statistical data provided by the Forest Resources Inventory of the Department of Lands and Forests of Ontario.
- (6) Economic Survey of Ontario, Department of Economics, Ontario Government, 1956.
- (7) Factors Affecting Land Use in a Selected Area in Southern Ontario, Ontario Department of Agriculture, 1957.
- (8) Forest Inventory and Reforestation under the Canada Forestry Act, 1952 to 1956, Canada Department of Northern Affairs and National Resources, Forestry Branch, Ottawa, 1957.
- (9) Normal Yield Tables for Black Spruce, Jack Pine, Aspen and White Birch in Northern Ontario, Report No. 24, Ontario Department of Lands and Forests, Division of Timber, 1956.
- (10) Unpublished information provided by the Ontario Forestry Association.
- (11) Public Inquiries Act (B.C.). Report of the Commissioner Hon. Gordon McG. Sloan.... Relating to the forest resources of B.C. 1956, Vols. 1 and 2.
- (12) Forests and Forest Products Statistics—Canada Department of Northern Affairs and National Resources, Forestry Branch Bulletin 106, 1957.
- (13) Timber Resources for America's Future, U.S.D.A. Forest Resource Report, No. 14, 1958.

The CHAIRMAN: Thank you very much. That was an excellent presentation, Mr. Godwin. I am sure the committee has derived much information from what you have told us.

Do any members have questions to ask?

Senator STAMBAUGH: Mr. Chairman, I would like to know just what trees are classed as hardwood and what are classed as softwood. For instance, I understand that poplar is classified as a hardwood. To me that has always been a softwood.

Mr. GODWIN: Poplar is classed as a hardwood simply in the botanical sense. Poplar, although, it is a softwood to cut or to touch or to handle, in the botanical sense is classified as a hardwood.

Senator STAMBAUGH: Is basswood classified as a hardwood?

Mr. GODWIN: Basswood is a hardwood, botanically classified as such.

Senator STAMBAUGH: Can it be said then that any coniferous tree is a softwood and any other tree is a hardwood. Would that be about right?

Mr. GODWIN: It is about right, yes. The coniferous species are classified as softwoods.

Senator STAMBAUGH: What about tamarack?

Mr. GODWIN: Tamarack is a softwood.

Senator HIGGINS: Would pine be classified as a softwood?

Mr. GODWIN: All the pines are softwoods.

Senator BARBOUR: What use is made of poplar?

Mr. GODWIN: Poplar is used in the lumber industry in many classifications, and if you wish there are some lumbermen here present who could describe its use. We use it in the manufacture of newsprint.

Senator BARBOUR: Is it not one of the poorest trees grown?

Mr. GODWIN: As a forester I try to convince my mill manufacturing personnel that that statement is not true; that it is a perfectly good tree for the manufacture of pulp and I would hope that its reputation would increase rather than diminish.

Senator HORNER: They are making plywood out of it in western Canada and in Virginia.

Mr. GODWIN: Yes, in western Canada particularly.

Senator HORNER: What is the Ontario Government doing by way of assistance in reforestation projects? You mention that the federal Government is doing something. What is the provincial Government doing by way of tax exemption and the like?

Mr. GODWIN: The provincial Government cannot do very much by way of tax exemption in that the only relief in that field, it seems to me, must come from the federal Government, it being a matter involving federal income tax. With respect to assistance in reforestation the provincial Government, as has been remarked in the brief, has established many nurseries, the present output of which is some 30 million trees a year.

Senator HORNER: Is the province furnishing those?

Mr. GODWIN: Yes. They are, however, not furnished free. If an individual wants to buy trees there is a stated rate. For instance white spruce may be bought for \$10 a thousand trees.

Senator HORNER: Provincial Governments impose a land tax in return for which they assist in the building of roads into timber areas, and lumber companies also have built their own roads in many cases, and of course many of the northern areas are served by water, are they not?

Mr. GODWIN: Yes, sir.

Senator HORNER: But there are vast areas where there are neither roads nor water routes.

Mr. GODWIN: That is correct.

Senator HORNER: And they contain aged timber.

Mr. GODWIN: Mature timber, yes.

Senator GOLDING: Are hardwoods being used in reforestation programs?

Mr. GODWIN: I should say that they are using very little hardwood in reforestation. Professor Love, would you care to answer that question? I do not have the proportion of hardwood in those 30 million trees I referred to a moment ago.

Professor LOVE: I do not have the actual figures but I know the percentage is very small and most of it is used for ornamental planting on highways and other areas for which the Department of Lands and Forests accepts some responsibility. There are very little planted in the forests.

The CHAIRMAN: Which type grows the faster? Softwoods or hardwoods? Which reaches maturity sooner?

Mr. GODWIN: Probably poplar will reach maturity faster than any of the other softwoods although utilization is being made now of pine forests planted in Ontario as recently as 20 years ago. Thinnings are being taken from pine

plantations and being utilized commercially, and that can also be true of a poplar stand. I would say it would be a race between poplar and red pine. Would you care to comment on that, Mr. Matthews?

Mr. MATTHEWS: Red pine power poles are being sold 35 years after planting.

Senator STAMBAUGH: Would they be telephone poles?

Mr. MATTHEWS: Yes.

Senator GOLDING: What would you estimate would be the maturity range for maple trees?

Mr. GODWIN: May I ask what you want to use it for?

Senator GOLDING: Hardwood flooring, industrial uses of any kind.

Mr. GODWIN: I would make an estimate at 100 years, but there are experts here who could enlarge on that. What would you say Mr. McNutt?

Mr. McNUTT: 70 or 80 years.

Senator HIGGINS: You mean it would take 70 or 80 years to reach maturity?

Mr. GODWIN: Yes. In our own case we consider that poplar rotation should be 45 years.

Senator HIGGINS: Spruce is very important in Newfoundland. How long does it take spruce to reach maturity?

Mr. GODWIN: On plantations we calculate a 60-year rotation for white spruce but in natural forest we consider 75-year rotation for white spruce.

Senator HORNER: Is not spruce very slow growing, particularly black spruce although it makes good pulpwood?

Mr. GODWIN: It is a very high density wood, long fibred, and is a favourite of the pulp and paper companies.

Senator HORNER: Is it not true that thinning seems to give these trees a spurt in growth?

Mr. GODWIN: That is correct.

Senator HORNER: This can be noticed particularly along roads or drainage lines, where the trees on the edge of the road or drainage ditch grow much faster than in the swamp.

Senator WALL: In connection with the growth factor, I wonder if the witness could clarify what to me is a conflict. On page 32 of the brief there is a statement that a perfectly balanced forest approximately 1 per cent of the area of mature timber is all that is required at any particular time. I assume that would be cut off. Then on page 35 it is said that the growth of less than 1.42 per cent for all species combined is extremely low.

Those two statements do not seem to fit, in my mentality at the present time, perhaps because of my ignorance. Will you explain what you mean by one and the other?

Mr. GODWIN: For purposes of example, could we imagine an area of timberland of 100 acres. If we operate an ideal forest on each acre we would have trees growing at progressive stages—one, two, three and so on up to 100 years old. In harvesting those you would take off one acre of trees, or 1 per cent. In the succeeding year the next acre behind it is now 99 years of age, and the following year it would be 100 years of age. The stand would be growing at the maximum rate of growth.

The other situation you mention is, for instance, our northern forest where we have some 44 per cent of the stand now in mature timber. Much of that is not growing at all, and we may even be having a net loss because of insects and disease. The 1 per cent refers to the area, and the percentage growth refers to the growth of timber.

Senator HIGGINS: What trees grow in a burned over area? Is there any particular kind of tree that follows a fire?

Mr. GODWIN: If we knew the kind of forest that was there before the fire, we would know what would follow the fire. For instance, if you had a mixed forest such as we have around north-western Ontario, which is normally about 20 per cent jack pine, inevitably after a fire you have a dense growth of jack pine.

Senator HIGGINS: I know in Newfoundland where a fire occurred some 30 or 40 years ago, and a dense growth of birch has come along. Why is that?

Mr. GODWIN: That very often happens in areas that have been burned over in Ontario and Quebec; the hardwoods will take over—they will be the first cover crop after a fire. One sees a growth of birch, and to a large extent poplar, such as is found in the Sudbury area.

Senator HIGGINS: Then I notice after the birch, the original trees come up.

Mr. GODWIN: That is correct. The first to appear are the birch or poplar, the cover crop as it is called, and then the conifers the seeds of which are borne more slowly and travel longer distances.

In time the various coniferous trees take over again.

Senator HIGGINS: I know a camp area where there is now a big lumber operation, where they had a fire, and the whole place was burned over. First, the birch trees came, and 50 years later the original pines are coming up. You say that happens?

Mr. GODWIN: Yes. May I ask Mr. Rogers, who is our white pine man, whether or not it is true that the hard woods take over first, and slowly the coniferous trees come along.

Mr. ROGERS: Quite right.

The CHAIRMAN: There is submarginal land in the southern area which is privately owned. Is it possible to encourage the holders of that land to make use of the idea of forestry and tree growing, and thus become tree farmers rather than cereal or stock farmers? Would it be possible that they would be able to take, say, 100 or 200 acres in the more accessible area, and use that in the meantime for tree growing until the farm became productive? Has such a scheme been worked out?

Mr. GODWIN: That is the thought that we hope to leave in the presentation of the brief today. It is our hope that just such a situation as you describe could be made possible. You are discussing the man who may have 100 acres of timber, which is perhaps not enough to give him an adequate income at the moment. We have described in the report an area of say 400 or 500 acres as being necessary to give him a gross annual return of \$4,000 or \$5,000. If he could acquire additional land, that would give him an opportunity of bringing his income level up to an adequate point. He could not do it on 100 acres; he would require perhaps 400 or 500 acres.

The CHAIRMAN: Is all the accessible timber now held by private timber people, or is there some timber area available for purchase by individual farmers?

Mr. GODWIN: You are thinking of land presently held in the Crown?

The CHAIRMAN: Yes.

Mr. GODWIN: The companies represented by the forestry industry of Ontario now hold 48 million acres, or roughly 25 per cent of the total provincial land area. May I ask Mr. Mills, as manager of the association, for his advice on how much Crown land would now be available to license to large or small operators?

Mr. MILLS: If you are referring to Crown land which has a commercial stand of timber on it, I would say that there is not much of it accessible. The department, from day to day, or week to week, makes some small timber sales occasionally to farmers, who may get a quarter mile or a half mile close to their farm, where they may carry on a logging operation in the winter, and work the farm in the summer.

There are two or three large areas still available and suitable for pulp and paper mills, but the areas suitable for the small farmers—and that is what you are referring to—are pretty widely scattered. The department does make small sales—they are called permits; a permit is given to allow a farmer to log so much during the winter months.

The CHAIRMAN: On the other hand, then, if that type of area was opened up with roads, and a farmer was put into it, would that timber be saleable?

Mr. MILLS: Some of it would, yes. It would depend on how far away he is from the existing saw-mill or paper-mill.

The CHAIRMAN: Yes.

Mr. MILLS: Transportation is very important. The wood cannot be transported far without a truck road.

The CHAIRMAN: That is what I thought. You would have to put in truck roads?

Mr. MILLS: Unfortunately, in those areas, and especially in the ones to the north, your mills are far away. The mills are in the southern part of that area, so that there is a trucking proposition, and you have got to have all-weather truck roads.

Senator WALL: I wonder if I could particularly commend the brief for the summary at the back entitled "Some Requirements for Improved Land Use." I would like to ask two questions. In paragraph 2—and I could not agree more—there is a recommendation for a well conducted and continuous program of public education in natural resource management. I do not want to enter into a complete discussion on this subject, but from the point of view of the work which has been done by the Canadian Forestry Association, of which I have some knowledge, do you know what has been done in that respect? I have never run into that concept. There is the program they developed dealing with the recreational use of the forest, the value of water, and so on, and that has been done by films and talks to children, but I have never run into the concept in that program that there are some parts of Canada that should be devoted exclusively to forestry, and other parts to other aspects. There is that concept, and that idea should be germinated in the mind of every young boy and girl and adult. Do you know if they have ever given any thought to that aspect of the program?

Mr. GODWIN: Mr. Chairman, every one of the delegation here is in some manner or other associated with the work of the Canadian Forestry Association. I think all of us have been at one time or other directors of it, and maybe some still are directors. I know the Canadian Forestry Association has given thought to the problem, but I think the scope of the problem is so large that they have been a bit dismayed, and they did not quite know how to tackle it. The association has been re-organized in such a way that they may be able to tackle that problem in the way it must be tackled, but it is an immense job. As you know, we have posed the problem here, but—

Senator WALL: You will appreciate that I have nothing but commendation for the work they have done, but it is that aspect that I was wondering about. Without seeming presumptuous, may I ask you what you mean by paragraph 6 which reads:

The possibility of determining quantitatively the desirable degree of accessibility for areas of varying tree growth and recreational potential is one which requires investigation?

Mr. GODWIN: Mr. Chairman, the senator has put his finger on a recommendation which is contained in the brief, but which is barely referred to in the brief. I must confess that the reason why it is not referred to in the brief is that in our own discussions on the point we concluded that we would take entirely too long in presenting this brief to the committee as it was, and therefore there is just a bare reference to it in the text of the brief. May I ask Professor Love to elaborate on the question. He has complained a little bit because we cut that section from the brief.

Professor LOVE: The leader of this delegation always puts me in a bad position in that the questions he cannot answer he always refers to me, but this question is one that comes about, I think, as a result of the fact that we can measure the productive capacity of land with respect to the amount of timber which it will produce, and, therefore, the value of the land and the intensity of road location that it will support. Obviously, if the land is relatively unproductive we would not be interested in putting in a very extensive road system. If we have to rely on winter roads, or hauling long distances over temporary roads, then the intensity of the permanent road system would be very low. Highly productive land, on the other hand, could be cut periodically, and, therefore, the road system could be maintained at a higher level of intensity.

Senator WALL: Let me accept that premise and ask: Who is seen as the responsible agent for determining quantitatively the economic feasibility of improvements in accessibility? Let me ask that question.

Professor LOVE: I think at this stage this is a research project which could be delegated to the federal Government's forest service and to the universities. It might possibly be referred to provincial organizations, although I think the universities and the federal forest service would be the logical group to undertake a study of this at this stage. Then, after some of the groundwork had been done it could be continued through the industry and the provinces.

Senator WALL: Thank you very much.

Senator CRERAR: First, Mr. Chairman, I would like to compliment the witness on the brief that he has presented to us. It is comprehensive and it is clear, which are both great merits. There are a few questions I would like to ask the witness. Large manufacturing companies like the pulp and paper mills, for instance, Abitibi, Great Lakes and International are, I understand, carrying on active programs of forest management to maintain perpetual growth. Is that correct?

Mr. GODWIN: They are, sir, in degree. They have under the Crown Timber Act of 1952 submitted their various inventories and their management plans. In all instances they are cutting within the capability of their limits to produce in perpetuity. They are also carrying on various management practices. Many of these practices, however, are not clearly defined and a great deal of research is necessary to find out the best cultural treatment that should be applied to the forest. We are still in the groping stage to find out what techniques should be used.

Senator CRERAR: Do they operate on Crown grants of land?

Mr. GODWIN: In the main the pulp and paper companies in Ontario operate on leased land—land licensed to them by the province.

Senator CRERAR: Do they show any appreciation themselves of the importance of forest management and maintaining a perpetual cycle?

Mr. GODWIN: Yes. All of the companies maintain large staffs of foresters who do nothing else but think of these problems day in and day out. Mr. Matthews is chief forester for Abitibi, and he can explain to you in detail what his company does in that respect.

Senator HIGGINS: What are the terms of the lease? How long does it last?

Mr. GODWIN: A lease in Ontario is made for a period of 21 years, which may be renewed for another period of 21 years if the work has been carried out to the satisfaction of the minister. It may be renewed for a third period. In other words, the land may be licensed to the operator for a total of 63 years.

The CHAIRMAN: Mr. Matthews, would you care to enlarge on that?

Mr. MATTHEWS: I don't know what I can do other than elaborate on what Mr. Godwin has said. Each person or each firm in Ontario operating under a licence is governed by the terms of the Crown Timber Act. At the same time he is usually dealing with a very large area of wild forest which is only partly accessible, and the forest is what I like to call a real biological complex. There are infinite numbers of combinations of soil conditions, drainage, moisture, accessibility, tree species, ground vegetation, and so on. In other words, a tree cannot grow alone but it must grow in company with other trees and other vegetation, and so on. This makes a very complex problem for the forest manager.

Our brief pointed out the history of the industry and its hard luck during the hungry thirties and the restriction that was made necessary later by war conditions as to staff, and so on. There has been investigative work going on for a long time, but as far as the real resurgence or real concentrated effort is concerned, that has taken place since the war. We are dealing with a growing substance, trees, that have long life cycles. We have talked today of cycles up to 100 years and longer. It takes a long time to find out how such a long-lived article will react to stimuli of one kind or another. The silvicultural problem in respect of learning how to grow and tend a plant that lives 100 years takes a long time to find an answer to. You can plant successive crops of wheat each year and it does not take you long to find out the characteristics of its growth, but with a forest it is a long-term job. We have been at it since the duration of the war and I think it is fair to say that most pulp and paper companies and lumber companies in the province have followed about the same pattern.

The first stage is fact finding. That is, they have taken inventory. Anyone holding over 50 square miles of licensed land in Ontario has prepared a forest inventory and submitted it to the Government. On the basis of these inventories they have prepared management plans. You might say that in taking inventories and in making management plans, because of the expansion in the industry and the limited staffs available during the war, it is necessary to find the men as well as the methods to do the job. Most of the management plans have been formulated on the basis of perpetual operation or sustained yield.

Senator CRERAR: In Ontario is that obligatory by law?

Mr. MATTHEWS: Not necessarily because the Crown must of necessity licence areas of timber which could not be operated on a sustained basis. For one thing it could be, say, a block of mature timber and it should be liquidated to put the land back to growing a new crop. In the second place, the allowable cut for such an area might be less than would permit an operator to carry on a business economically. So that there are two kinds of operations. Basically, the principal objective of the province is to have sustained yield throughout the forest. They have what they call Crown management units in which the

whole unit will be operated on a sustained yield. By selling blocks of timber here and there within the management unit, according to plan, the overall effect is one of sustained yield.

Senator CRERAR: I believe they have such a plan in British Columbia, up to a point anyway.

Mr. MATTHEWS: With respect to their timber management licence system, I believe. But I am not qualified to talk about British Columbia.

Senator CRERAR: I understand that the large operators and some of the others have worked out a program of sustained yield and that they are obliged to do that under the laws of the province.

Mr. MATTHEWS: They are not only obliged to but they want to.

Senator CRERAR: I quite agree with that.

Mr. MATTHEWS: If you take a pulp and paper plant today, the minimum size you can contemplate is perhaps in the neighbourhood of 500 tons or more of daily capacity. The investment you must make with relation to such a plant is away up in the multi-millions and you cannot afford to move that plant property to other timber areas. It is in the self-interest of the companies to make sure they have continuous supplies of timber as far as they can see into the future. It is for that reason the industry is interested in doing the fact-finding and the work on inventories. Almost all of them have some research project into the growing of timber, into silviculture, either individually or collectively or both. There is a very interesting project in Ontario which has been carried on and is now in its fifth year. Is that right, Mr. Godwin?

Mr. GODWIN: Sixth year.

Mr. MATTHEWS: The pulp and paper companies, the two Governments, and the universities are all involved, either contributing in cash or kind to try and solve a common problem and find an answer by a co-operative effort. As we have said several times now, those answers come slowly because of the complexity of the forest, the size of the forest, and the life cycles involved; but the fact-finding is going forward steadily and I think answers are beginning to come up.

Senator CRERAR: There is one other question I should like to ask, Mr. Chairman, and that is in relation to what success is attending the development of farming plots—

The CHAIRMAN: Wood lots?

Senator CRERAR: Where an individual farmer sets aside a few acres for trees. Do you find an increasing and developing interest in that?

Mr. GODWIN: Very definitely there is a developing and increasing interest on the part of a man who owns a farm, a wood lot, in perpetuating it for the production of timber. He is up against certain difficulties, however, and the matter of taxation on that individual is of importance to him. It has been suggested in the brief that if some means could be found to provide him with an incentive to carry on that work, it would be advantageous to everybody concerned. I will quote two examples. A man owning a farm woodlot at times comes into a period of financial stress from time to time. He needs a little cash. He can realize and enjoy a capital gain by selling his woodlot, probably to a local firewood dealer, or to someone owning a sawmill in the community. What happens then is that the forest is completely cut off, and is allowed to remain in that condition. The owner gets his capital gain all right by selling, but no benefit is conferred on the community or the province. On the other hand, if he tends his woodlot and develops his growing stock, and sells forest products from it, the revenue is considered as income in his hands, and he is taxed accordingly. Therefore, although we may have an excellent

example of taxation in theory, it is not such as to induce that person to practice forestry. In fact, it is the reverse. It encourages departure from good forestry practice. It would be better practice to provide an incentive to that man to keep his land in forest production, rather than to get his capital gain.

Senator CRERAR: Unfortunately, in the development of our tax methods and this insatiable search for revenue we have evolved taxation policies that are retrogressive. If, for example, you said to a farmer, "Now, any farmer who develops and cultivates ten or fifteen or twenty acres of good woodlot will be exempt from an income tax," do you think it would encourage him to develop it?

Mr. GODWIN: I am sure it would. As a matter of fact, I would be surprised if it would go that far, but perhaps there could be a basic exemption provided for that individual to provide encouragement to him to cultivate his woodlot rather than sell it.

Senator HORNER: I see a very great difficulty in that, because some men with very good farms might own a poor 100 acres suitable for growing timber, and it would be impossible to set up an exemption without consideration of each individual case. By the way, Mr. Godwin, is it true that timber grows much faster in the southern part of Ontario than in the north?

Mr. GODWIN: Yes, sir.

Senator HORNER: Then the United States have a great advantage, in Georgia, for instance, in growing this red pine, you have been speaking about. That would grow even faster than in any part of Ontario, would it not?

Mr. GODWIN: Yes. Although, in plantations established in southwestern Ontario the rate of growth in many instances is comparable with that achieved in Georgia, which you mentioned, and any other southern state. It is not at all unusual in pine plantations in southern Ontario to get growth rates comparable with those in the southern States. They are not, however, better on the average.

Senator CRERAR: It is true that in some southern States of the Union, when they were opening up many years ago, and homesteads were made accessible to settlers at extremely low prices, part of the condition to the settler was that he would develop a minimum number of acres of trees. Now, this is a little aside from the point, Mr. Chairman, but with regard to the Prairie provinces, when we alienated millions of acres for homesteading purposes, if in addition to tearing up a certain number of acres, or putting up a certain number of buildings, by way of improvement, the applicant had been obliged to plant say five acres or ten acres of trees, we would have completely changed the whole face of the Prairie country. The trees will grow anywhere in Western Canada, if they are certain varieties; that is an established fact. The modification of climate or rainfall, and that sort of thing, no doubt is very difficult to measure in that part of the country. May I say that what I like about this brief which has been presented is that it is sensible, and it is within the realm of commonsense in that respect.

The CHAIRMAN: Mr. Godwin, in the case of the southern areas there are some 4 billion acres held by private individuals. Now, that was extensively developed into woodlots, or a great percentage of the sub-marginal land consist of woodlots. Would there be a continued good market for those woodlots, if they were too heavily developed?

Mr. GODWIN: I think there is no question at all that the market would develop concurrently with the timber growth on the area that you have in mind at this moment. In the northeastern portion of the so-called southern agricultural zone, hardwood products are being drawn upon by at least three pulp

and paper mills—and those mills will probably expand. I understand the Hinde & Dauch mill at Trenton, the Howard Smith mill, at Cornwall, and the International Paper Company mill, at Hawkesbury, are all drawing on the supply that could be best grown here; and any farmer would find a lively market for his product.

Senator STAMBAUGH: What percentage of hardwood, poplar, for instance, do the pulpwood manufacturers figure they can use?

Mr. GODWIN: Mr. Chairman, it depends entirely on the process. The three mills I have just described are now almost entirely hardwood consuming mills. The one at Trenton is a 100 per cent hardwood consuming mill; and Hawkesbury is also 100 per cent hardwood consuming.

Senator HORNER: Do they use elm?

Mr. GODWIN: They use elm.

Senator STAMBAUGH: I was talking to one of those companies that developed a recent pulp process and did not want hardwood. Mr. Rogers will take every species of hardwood as well as softwoods, except cherry, the supply of which is almost infinitesimal; they will take cedar, maple, beech; with the new processes resulting from research developments in chemical pulps they can use all of those species. There are large areas in our sub-marginal district to the south which produce hardwoods which have not been saleable, but which will become more and more saleable, and the possibility will be enhanced as new developments come through.

Mr. GODWIN: Mr. Chairman, so that that point is quite clear, may I say that the process and the product is important. For instance, utilization of hardwoods is not possible in the newsprint industry. Some of the newsprint mills are using poplar in the manufacture of newsprint, but at this moment it cannot use any other hardwood than poplar. The mills described in this region are making a variety of Kraft paper, or book paper, or so-called dissolving pulp for the manufacture of rayon. Hardwoods are satisfactory for that purpose, but no means has yet been found by the newsprint mills to use hardwood generally for newsprint, because newsprint needs a strong, long fibre in the process.

Senator STAMBAUGH: It is evident then that the type of people I have been talking to do not recognize that because they have resisted using hardwoods.

Mr. GODWIN: If you are referring to a newsprint mill they will resist it because they do not know how to use it at the moment.

Senator McGRAND: Mr. Chairman, this question perhaps has nothing to do with the brief but I would like to ask Mr. Godwin what is the future, what is the outlook of the pulp and paper industry in Canada, bearing in mind the competition in the use of hardwoods in the United States, the labour situation in Canada, and the competition that is threatened from Soviet Russia? Taking all these things into consideration what is the outlook for our Canadian industry?

Mr. GODWIN: Mr. Chairman, that is a pretty substantial question that Senator McGrand has just asked. It would take some time to answer it, I am sure.

Speaking for the industry in Ontario, I would say that it is very much concerned about competition from the various sources that you have mentioned. In the case of the newsprint industry in particular the growth of the newsprint production in the southern states has been of such magnitude that the Ontario mills are very much concerned about their competitive position *vis-à-vis* the south. The industry there has grown during a period of a little more than a decade from production of less than 100,000 tons of newsprint a year to over a million tons. If that growth had not occurred then we would be able to

supply that demand from this country, but such is not the case because their wood supply is cheaper and they are closer to the consuming markets. I know too that the industry in Ontario is concerned about the possibility of competition from Soviet Russia. The Soviets have announced that such competition is on the way and in many instances they follow through on their announcements. They say that they are going heavily into the manufacture of pulp and paper products and knowing the extent of their forests, they could give the Ontario industry a very rough time indeed in competition for world markets.

The CHAIRMAN: Is the Seaway going to help at all in meeting competition?

Mr. GODWIN: I am not too sure in what respect it will help us.

The CHAIRMAN: In the cheaper marketing of our exports.

Mr. GODWIN: Exports of course are most important to the industry. Our principal market is in the United States but the industry is also interested in European markets. There we are on a competitive basis with the Scandinavian pulp and paper industry and with the impending threat from Soviet Russia. I am a little bit skeptical that the Seaway will be of any tremendous help to the Canadian pulp and paper industry in putting its products in overseas markets.

The CHAIRMAN: What I was thinking of particularly was making shipments to the Atlantic seaboard in competition with the production of the southern states.

Senator STAMBAUGH: I would like for a moment, Mr. Chairman, to refer to page 12 of the brief, where Mr. Godwin gives net farm income in 1926 as \$164,003,000 and in 1956 as \$405,561,000. I notice at least over half of that would be due to increases in prices, but I would also like to know if the balance of that is principally an increase in the production of some products or if it has been a change from wheat, oats and grain crops to tobacco and such things. Could you give us any information along those lines?

Mr. GODWIN: I think, Mr. Chairman, you would have to call on some other witness to give you that information. It is an agricultural question and really could only be answered by a representative from the Department of Agriculture.

The CHAIRMAN: Mr. Stutt, could you say anything on that?

Mr. STUTT: There is quite a lot to be said there, Mr. Chairman, but it does not apply particularly here.

Senator WALL: Mr. Chairman, may I ask Mr. Godwin with regard to the requirements or recommendation No. 9, "Increased support for research in the field of forestry related to (a) the utilization of hardwoods and (b) improvements in harvesting methods and techniques to accomplish increased coniferous regrowth on cut-over areas, is required."

Could Mr. Godwin or some of his delegation indicate the kind of research that is being done in those two specific fields and to whom is this general invocation addressed?

Mr. GODWIN: Mr. Chairman, I think the general invocation is addressed to anyone whom we can interest in the problem and we hope that one of these will be the federal Government.

Senator WALL: It could be a self-addressed invocation?

Mr. GODWIN: Yes. In the utilization of hardwoods from the federal Government side of the picture the Forests Products Laboratories carry on valuable work in providing information and in the conduct of research.

The Pulp and Paper Research Institute of Canada in which the federal Government participates in a degree is also interested, and you are familiar to the extent to which they are. So do many other companies: Abitibi does, and so does Canadian International Paper.

Senator WALL: Is that level of research or the extent and level at an intensity not adequate at the present time to meet the problem?

Mr. GODWIN: We think it is not adequate. We are not learning about the hardwoods and the manner in which they can be utilized both as material in the raw state as is represented by primary lumber products, and we are not getting basic facts quickly enough on how hardwood may be used in pulping processes.

Mr. STUTT: Mr. Chairman, with regard to point No. 4: "The possibility of the federal Government introducing some financial incentive to private landowners to certify land under the tree farm program requires investigation." Have you in mind, Mr. Godwin, some financial incentive, somewhat similar to the incentive which is contained in the state of Wisconsin?

Mr. GODWIN: If I remember well, the state of Wisconsin has a yield tax?

Mr. STUTT: Yes.

Mr. GODWIN: No, I do not believe our delegation has in mind anything of that nature. We are not in a position to suggest how this might be done, but on the other hand our attitude is that if we could draw the problem to the attention of this committee it could work towards its solution. For instance, would it not be possible to provide some form of credit to people interested in farm woodlots such as is presently being done for agriculture under various forms of credit arrangements? At the present moment farm woodlot owner is not eligible for any of these credits and we suggest an investigation should be made of the possibility of including him as a person eligible for the receipt of such credits.

The CHAIRMAN: Are there any more questions?

Senator HORNER: I move the adjournment, Mr. Chairman.

The CHAIRMAN: Before we adjourn I would like to extend to the gentlemen forming this delegation here this morning our sincere thanks for the assistance that they have given us.

The meeting adjourned.

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... on ...
2nd Session, 24th Parliament, 1959

THE SENATE OF CANADA



PROCEEDINGS

OF THE

SPECIAL COMMITTEE OF THE SENATE

ON

LAND USE IN CANADA

No. 6

WEDNESDAY, MAY 6, 1959

THURSDAY, MAY 7, 1959

The Honourable Arthur M. Pearson, Chairman

WITNESSES:

Mr. Ed. Nelson, President, Farmers Union of Alberta and Vice Chairman, Interprovincial Farm Union Counsel, Mr. James Patterson, Director of Public Relations, Interprovincial Farm Union Council, The Hon. I. C. Nolett, Minister of Agriculture, Saskatchewan, Mr. W. H. Horner, Deputy Minister of Agriculture, Saskatchewan, and Mr. Grant Mitchell, Research Economist, Department of Agriculture, Saskatchewan.

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Power
Basha	Horner	Smith (<i>Kamloops</i>)
Bois	Inman	Stambaugh
Boucher	Leger	Taylor (<i>Norfolk</i>)
Bradette	Leonard	Taylor (<i>Westmorland</i>)
Buchanan	MacDonald	Turgeon
Cameron	McDonald	Vaillancourt
Crerar	McGrand	Wall
Emerson	Methot	White—31.
Gladstone	Molson	
Golding	Pearson	

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—
Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

WEDNESDAY, May 6, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 8.00 P.M.

Present: The Honourable Senators: Pearson, Chairman; Basha, Bois, Buchanan, Higgins, Horner, Inman, MacDonald, McDonald, McGrand, Stambaugh, Taylor (*Westmorland*), and Wall—13.

In attendance: The official reporters of the Senate.

The Committee proceeded to the further consideration of the order of reference of Tuesday, February 17, 1959.

The following witnesses were heard: Mr. Ed. Nelson, President, Farmers Union of Alberta and Vice-Chairman, Interprovincial Farm Union Council; Mr. James Patterson, Director of Public Relations, Interprovincial Farm Union Council.

At 10.00 P.M. the Committee adjourned until tomorrow, Thursday, May 7, 1959, at 10.30 A.M.

THURSDAY, May 7, 1959.

At 10.30 A.M. the Committee resumed.

Present: The Honourable Senators: Pearson, Chairman; Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Higgins, Horner, Inman, MacDonald, McDonald, McGrand, Molson, Stambaugh and Taylor (*Westmorland*)—18.

In attendance: The official reporters of the Senate.

The Committee proceeded to the further consideration of the order of reference of Tuesday, February 17, 1959.

The following witnesses from the Department of Agriculture, were heard and questioned: The Hon. I. C. Nolett, Minister, Mr. W. H. Horner, Deputy Minister, and Mr. Grant Mitchell, Research Economist.

At 12.20 P.M. the Committee adjourned.

At 1.30 P.M. the Committee resumed.

Present: The Honourable Senators: Pearson, Chairman; Bois, Boucher, Bradette, Cameron, Crerar, Horner, MacDonald, McDonald, Molson, Stambaugh and Taylor (*Westmorland*)—12.

Messrs. Nolett, Horner and Mitchell were further heard and questioned.

The following brief was filed and ordered printed as Appendix "C" to today's proceedings: "Soil and Water Conservation and Land Use".

The following documents were filed with the Clerk of the Committee: 14 Reports of the Royal Commission on Agriculture and Rural Life to the

Government of Saskatchewan: 1. The Scope and Character of the Investigation, 2. Mechanization and Farm Costs, 3. Agricultural Credit, 4. Rural Roads and Local Government, 5. Land Tenure: Rights and Responsibilities in Land Use in Saskatchewan, 6. Rural Education, 7. Movement of Farm People, 8. Agricultural Markets and Prices, 9. Crop Insurance, 10. The Home and Family in Rural Saskatchewan, 11. Farm Electrification, 12. Service Centres, 13. Farm Income, 14. A Program of Improvement for Saskatchewan Agriculture and Rural Life.

Also filed: The 53rd annual report of the Department of Agriculture of the province of Saskatchewan for the 12 months ended March 31, 1959.

At 3.00 P.M. the Committee adjourned until Wednesday, May 13, 1959, at 10.30 A.M.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, Wednesday, May 6, 1959.

The Special Committee on land use in Canada met this day at 8 p.m. Senator Arthur M. Pearson in the Chair.

The CHAIRMAN: Honourable senators, I think we have a quorum, and it is just after 8 o'clock so I think we had better start.

You will remember that at the last meeting, or the one before, I was authorized to get in touch with Mr. Vernon Johnson of the Canadian International Paper Company, and I have here a letter which I have received from him. I shall read it to you:

"Thank you very much for your letter of April 27.

Naturally, we are most appreciative of your acceptance of the proposed visit to Harrington Forest Farm and presently, suggest the dates of May 22-23 as discussed. We have sleeping accommodation to take care of at least 15 people and there is no problem of feeding them. If the group is larger than this, we will have to think of other arrangements. It is also understood that you will like us to arrange for transportation from Ottawa and return. This we will gladly do and suggest picking up your party at 9 a.m. at a rendezvous chosen by your group and will plan to deliver all back to Ottawa after lunch on Saturday, May 23.

I am writing you this information so you will have it available and we will be prepared for those dates which seem to us to be suitable. Please advise how many will be in the party.

If you care to call me, please do so at UN-6-9771. If I do not happen to be in, talk to or ask for F. A. Harrison, vice-president in charge of Woodlands and between the two of us, we will try to answer your questions.

In the meantime, we are enthusiastically looking forward to having you and your party."

Senator HIGGINS: How far away from Ottawa is this, do you know?

The CHAIRMAN: It is about 75 miles.

Senator MACDONALD (*Queens*): How many did he say were going to be in the party?

The CHAIRMAN: He can accommodate 15 for the Friday night.

Senator MACDONALD (*Queens*): Why should there be 15? Would not two or three spokesmen be enough?

The CHAIRMAN: I think last year when we had Mr. Johnson here giving us a brief on forestry affairs he invited us down to this forestry farm, or tree farm, to see what they are doing in the way of encouraging farmers and developing the tree farm idea.

Senator STAMBAUGH: Mr. Chairman, why not see how many will volunteer to go? Maybe there will not be more than fifteen.

The CHAIRMAN: I think it might be a good idea to circularize the members of the committee tomorrow, say, and find out.

Senator STAMBAUGH: Yes.

The CHAIRMAN: And when all the names come in to me I will get in touch with Mr. Johnson. Will somebody move that?

Senator STAMBAUGH: I will move it.

Senator MACDONALD (*Queens*): I will second it.

The CHAIRMAN: Honourable senators, we have with us Mr. Nelson who is the president of the Farmers' Union of Alberta and vice-chairman of the Interprovincial Farm Union Council. We also have with us Mr. James Patterson who is here on my right, and he is the Public Relations representative of the Interprovincial Farm Union Council stationed here in Ottawa.

This evening Mr. Nelson will give us the brief, and then after the brief has been read we shall ask questions. Mr. Nelson, will you introduce yourself to the committee, and tell us what you have done in your life and what qualifications you have.

Senator BUCHANAN: The main thing is that he comes from Alberta.

Mr. EDWARD NELSON: Thank you, Mr. Chairman and honourable senators. This is going to be rather simple because, you know, I am actually one of the native sons of Alberta. I am still farming within five miles of the place where I was born, so I have not moved very far, and probably I have not gathered too much moss—at least, I hope I have not.

Senator BUCHANAN: It depends on where the place is.

Mr. NELSON: In case any of you are familiar with the country around the south of Edmonton, it is about 50 miles south of Edmonton, and I was born in the municipality which was called Fertile Valley but which is now called the County of Ponoka. Then I moved across the line into the County of Wetaskiwin. Wetaskiwin is the place where our mail is distributed from, and the rural address is Brightview, Alberta. I do not know whether I can explain it any better than that.

Senator MACDONALD (*Queens*): If you were never an inmate of Ponoka you are all right.

Mr. NELSON: They say that anybody that gets away from Ponoka is all right. I do not know whether that is a compliment or not. I spent two years in the agricultural school at Olds, and there were about seven or eight of my neighbours who went with me, and they did everything under the sun to try to hide the fact that they had come from Ponoka. Incidentally, my father had the rural post office there at the time, and I was quite proud of it as well. On the other hand, I couldn't see any reason for getting around the fact that I had come from Ponoka, so generally I said I was from Ponoka. These other people had all kinds of addresses they could give. But I never could quite understand the reason for that because I thought Ponoka was a pretty nice place, and I still think so.

Honourable senators, it is a pleasure for me as a farmer who has not been away from the farm too much to address this committee. I have farmed all my life with the exception of the short time I went to school, and, as you can probably tell from the way I talk to you, my schooling was not very extensive. As far as my organization work is concerned, my experience has been mostly around co-operative efforts. Some three years ago I got, shall I say, tangled up with the farm union in Alberta, and because nobody else wanted the job as president I got booted up the hill, and that is the way it has gone generally.

Tonight I am going to submit to you the brief that the Interprovincial Farm Union Council has prepared. It may seem to have more of a prairie

flavour than it should have since it comes from the Interprovincial Farm Union Council, which takes in Ontario and British Columbia as well. However, I think that basically it does represent farm union policy and farm union thinking.

Senator McDONALD (*Kings*): How many members have you got?

Mr. NELSON: In Alberta at the present time there are 30,000 farm units represented in our organization. In Saskatchewan there are some 11,000 or 12,000, and in Alberta there are about the same.

Senator WALL: That would be what percentage?

Mr. NELSON: In Alberta we have 66,000 members, the highest membership we have ever had in the history of our organization in Alberta. That represents, I think, roughly about half of the farm people in Alberta.

Senator BUCHANAN: That has been built up largely in the last two or three years. It did get down to a low level two or three years ago.

Mr. NELSON: Yes, I think the lowest membership we had in Alberta in any period I can think of was some 9,000. Then it hung around 18,000 to 20,000 for sometime and this year it went up. Frankly, I do not know any reason for this except I think the farm people have become more conscious of the need for organization.

Senator STAMBAUGH: They have a good president.

Mr. NELSON: I wouldn't go so far as to say that.

Senator McDONALD (*Kings*): You have some 60,000 in Alberta. How many in Saskatchewan?

Mr. NELSON: I think it is something over 100,000 farms in Saskatchewan. I had a clipping that indicates there are around 100,000 farms in Saskatchewan, probably a few more.

Senator McDONALD (*Kings*): And Manitoba?

Mr. NELSON: Around 50,000, I think. Is that right?

Mr. PATTERSON: It is less than that. It would be somewhere between 40,000 and 45,000.

Mr. NELSON: I thought 50,000 might have been a little high.

Senator McDONALD (*Kings*): And Ontario?

Mr. NELSON: Ontario is something I am not too familiar with. There may be other people here who could give a better answer.

Senator MACDONALD (*Queens*): What do you want us to do, pin you down to Alberta or are you going to speak for the whole farming community?

Mr. NELSON: This brief represents the Prairie provinces more than the others. If we were going to take in the rest we would have had to spend more time on this brief than we have. As a matter of fact, the other provinces have not even looked at this. They don't know what is in here.

Senator BUCHANAN: They have the same problems as you have?

Mr. NELSON: Yes. From the small farmer's standpoint I don't think there is much difference.

Senator McDONALD (*Kings*): Would your union's views be agreed to by the Canadian Federation of Agriculture? Perhaps that is not a fair question.

Mr. NELSON: I could not say that the Federation has agreed to this brief because they have not, but I can say in all fairness that if I asked the Federation to take a look at it I doubt if they would change it. I am a member of the Federation myself.

Senator McDONALD (*Kings*): Is there pretty good agreement between the two organizations?

Mr. NELSON: In Alberta we don't even consider ourselves to be separate organizations. We are part of the same thing.

Senator STAMBAUGH: Are you not a member of both yourself?

Mr. NELSON: That's right. As a matter of fact the farm union is associated with the Federation of Agriculture. That is to say, the Federation of Agriculture takes in all the co-operatives and we are a direct member organization representing our members. As such we have three members sitting on the Board.

Senator McDONALD (*Kings*): That is very encouraging, is it not, for it has not always been that way?

Mr. NELSON: Actually, it has been that way more or less all the time. There has been a little bit of animosity, shall I say, but I think that has pretty well been set aside. As far as the actual aims and ideas of the two organizations are concerned, with the exception of possibly two or three areas, I don't think there has ever been too much variance at all.

Senator TAYLOR (*Westmorland*): Is it not fair to say that in Alberta the Federation of Agriculture is composed for the most part of groups in Alberta the same as it is in any other province?

Mr. NELSON: That is correct.

Senator STAMBAUGH: For the most part the Alberta Federation represents co-operatives.

Senator TAYLOR (*Westmorland*): But it is affiliated with the Canadian Federation?

Mr. NELSON: That is right. I happen to be a member of the Canadian Federation as well.

Senator TAYLOR (*Westmorland*): Is it also true that individual farmers are not members of the Canadian Federation?

Mr. NELSON: That's right.

Senator HORNER: You spoke about animosity. Where would that come from?

Senator STAMBAUGH: Jimmy Jackson.

Mr. NELSON: No, Jimmy Jackson happened to be the voice, possibly, for some of the animosity. Let's put it that way. But to be absolutely fair, if you want me to go back into the history of farm organization in Alberta—it is interesting history but I don't think you are really interested in that at this time.

Senator MACDONALD (*Queens*): No, we would be here all night.

Senator McDONALD (*Kings*): We were hopeful that there would be a good working feeling existing now between these organizations, and I personally wanted to think that the representations being made tonight would be agreed to by somebody like Dr. Hannam.

The CHAIRMAN: Dr. Hannam will be here next week.

Mr. NELSON: As a matter of fact, I have read the brief the C.F.A. has prepared. Our brief has nothing to do with theirs. It is being submitted entirely separate from the C.F.A. brief.

Senator MACDONALD (*Queens*): I wonder, Mr. Chairman, if we could not let Mr. Nelson proceed with the brief, and deal with the questions as he goes along?

The CHAIRMAN: Yes.

Mr. NELSON: Incidentally, honourable senators, the preface to this brief was presented to you pretty nearly verbatim by Mr. Platt two years ago. Then we carry on more or less from that into the small farmer problem. I will now proceed with the introduction, if I may.

Senator HIGGINS: Before you proceed, have you read any of Sir Shane Leslie's books?

Mr. NELSON: I have read one of his books.

Senator HIGGINS: He held that no nation ever survived without forest. He was a great Irish writer, and he wore an Irish kilt. It is an historical fact, in spite of what may be said to the contrary, that bagpipes and kilts were used by the Irish long before they were used in Scotland.

Mr. NELSON: I agree with that. There is nothing wrong with that theory either.

During the history of the world many great civilizations have disappeared and in the opinion of many competent historians improper land use has been one of the main contributing causes leading to their downfall.

In Canada today we all recognize that not all our land is being properly utilized and conserved. Denuded headwater areas are causing floods and droughts on most of our rivers. Every year water and wind are removing irreplaceable top soil. In some small areas we have reduced the productive power of the soil to zero by interfering with natural cover and allowing erosion to take its toll. All this and more in the few short years that Canada has been settled, indicates that unless we exercise the most vigilant control in the years ahead our soil will progressively deteriorate and our society along with it.

We farm people are in daily contact with the problem and appreciate perhaps better than most the gravity of the situation. We, perhaps more than most, welcomed the formation of your Committee. We appreciate the importance and the complexity of your task and feel sure that your deliberations will result in beneficial actions for which future generations of Canadians will be grateful. It is our hope that this submission will be of some value, and we assure you that the limited resources of our organization are at your disposal.

OBJECTIVES

In our opinion a proper land use program should have the following objectives:

1. The maintenance of our forests to assure the conservation of water resources and a sustained yield of timber products.
2. The maintenance of our grass lands to protect the soil from erosion and to maintain productivity for all times to come.
3. The maintenance of the productivity of our farm lands so that we are assured of abundant high quality food for our citizens, with sufficient for export to meet the demands of less fortunate people in other lands now and in the future.
4. To improve all our land by fertilization, moisture conservation, irrigation, reforestation, etc., so that increased demand in the future for products of the soil can be assured.
5. The continued well-being of the farmer on the land with economic security for him and his family.

RESPONSIBILITY FOR PROPER LAND USE

Proper land use is the concern of all citizens, and consequently the responsibility of all citizens.

Farmers have a particular responsibility and most of us are aware of it. Each of us use our land properly or improperly and either increase or decrease its productivity by our day-to-day decisions and farming operations.

Other citizens also have a responsibility which can best be exercised by the governments they elect to do for them what they cannot do alone.

We propose in the next two sections of this submission to examine and make suggestions as to what farmers and government might do to improve the situation.

FARMERS' RESPONSIBILITY

On the farmer must rest the primary responsibility and trust for proper land use. Government agencies and government policy can be designed to assist him, but his intimate knowledge of local conditions, his personal interest in the soil and his skill in cultural practice make him, in the final analysis, the person to whom this task must be entrusted.

To all farmers the importance of their stewardship should be emphasized. When he receives the deed to his land he should solemnly covenant to care for the land in a husband-like manner. If he fails to use his land properly, he should be legally responsible for the damage he does.

If a farmer is to assume these obligations he must have the means to carry out his responsibilities. His net income must be sufficiently large to allow for proper soil maintenance. This is a legitimate cost against food production. During many periods in the history of Canada, returns to the farmer have not been sufficient to cover costs with the result that the farmer was forced to live on his soil capital. The most expensive food is that produced at the expense of the land, and Canadian consumers must be made aware of this obvious fact. History in this and other countries has shown conclusively that, given a prosperous and healthy agriculture, most land use and conservation problems will be looked after by the farmers themselves. If, on the other hand, agriculture is chronically depressed, no amount of effort on the part of government, or anyone else, can stop the erosion of our soil resources.

Senator WALL: May I intervene at this point and ask for a clarification of the concept of soil capital? What do you mean by soil capital, in specific terms?

Mr. NELSON: Well, soil itself of course is the capital that provides food for the nation. In other words, you put money into soil. That is the concept of capital as we know in this country, and as understood by most countries of the world. We put money into a piece of land, we buy it, and become the owner. The money put into it, plus the money put into resources which go into the soil is part of capital.

Now, if the returns from this food product is not sufficient to pay for the original cost or the original capital put into the soil, plus the cost of bringing the resources out of the soil then you get a process of mining; that is if you take out and you don't put sufficient resources back into it, in the process you eventually devalue the value of that soil—the original capital you had begun with becomes lower and less valuable as you go along.

Senator HIGGINS: You mean you force the soil?

Mr. NELSON: That is right.

Now, government responsibility, of course, is the responsibility of all citizens.

We feel that there are two main fields in which Government can play an important role in a proper land use program. The first of these is the development of a national agricultural policy providing an economic climate that would give the agricultural industry a fair opportunity to obtain its share of the national income. The second is the implementation of a National Soil and Water Conservation Act.

The objective of a national agricultural policy should be to provide the opportunity for farmers to earn their fair share of the national income. It is not our intention to comment at length on what should be done in this field. Our views have been submitted to the present and the previous governments on more than one occasion and are available in the records. We propose to review but briefly a few of the things that should be taken into consideration.

Nature of the Problem: The problems of agriculture are regional in nature. They are complex, and constantly changing. No one action can be expected to be a cure-all, and old remedies do not usually solve new problems. It seems to us that the most significant problem facing Canadian agriculture today is that of surplus production. For the first time in the history of the world it appears that the farmers of Canada, the U.S.A., and western Europe, can, over an extended future period, produce more food than can be domestically consumed or sold in the commercial markets of the world. Barring unprecedented disasters, there is abundant evidence that this situation will continue to exist for some time. Furthermore, there is at least some evidence that Russia, and perhaps even China, will soon reach this same level of production. We in North America have had this problem for some years and are only now beginning to realize that it is not a temporary situation, but semi-permanent in nature. We know what even very small chronic surpluses can do to the price structure and we have found that changing a wheat surplus to a pork surplus has availed us nothing. We know that market price supports designed to handle seasonal surpluses are not effective in dealing with chronic surpluses. This new situation has been brought about by the tremendous technological developments that have taken place and are still taking place in the farming industry. To name a few—mechanization, new varieties of crop plants, new insecticides and herbicides, growth promoting hormones, improved feeds and improved breeds of livestock. Judging from what has taken place in industry this trend to improvement will continue and may even accelerate.

A second current problem of agriculture is the constantly rising costs of production. This has been so severe that for many farm products our only possible market is the United States.

Components of a National Policy: Some of the more important aspects of a national agricultural policy for Canada are listed below:

1. A surplus utilization program (preferably on an international basis, but alone if necessary), whereby our surplus foods are used to build up the economies of underdeveloped countries.
2. The use of deficiency payments on all products to maintain family farm income. Market price supports to be used to care for seasonable surplus and to prevent food prices going to disaster levels.
3. A national scheme of supervised farm credit.
4. The control of inflation and a tariff and trade policy that will enable export products to be competitive in world markets.

A National Soil and Water Conservation Act: Any national conservation program must involve government at all levels. Consequently any federal Act must make provision for agreement with the provinces and municipalities so that projects may be jointly initiated. Similarly, at the local level, committees should be responsible for the planning and carrying out of local projects.

In our opinion the work could be carried out best by establishing a Division of Conservation within the Department of Agriculture. This division would take over the present conservation work of the department, including the Prairie Farm Rehabilitation Administration and the marshland rehabilitation work. Such a division should, at all times, maintain close liaison with research activities in the department and in universities together with the work of the provincial extension branches.

The scope of the work would be extensive. Some of the activities would include:

1. Large and small irrigation projects.
2. Drainage and other reclamation projects.

3. Water conservation in all its aspects including individual and community water supplies.
4. Erosion control such as regrassing or reforesting eroding areas.
5. The removing of land from farming and the establishing of pastures and wood lots.
6. Assisting the individual farmer with his problems, including engineering service and payments where justified for permanent land improvement.

In initiating projects such as irrigation schemes, due regard should be given to probable markets. Particularly in the next few years such projects should be most carefully examined. While this situation may not always be with us, immediate emphasis should be directed toward removing marginal land from production and protecting that which is in use rather than bringing new areas under production.

The small farm problem: The first thing that we have to state in considering the problem of the small farm is our objective. To say that it is desirable to have economic, efficient farm units is not, in itself, sufficient, however. We believe the objective of farm policy should be the protection of the family-type farm—that is, a farm of a size that will effectively employ the labor and the resources of a farm family with possibly some assistance at peak seasons, and one in which the major management decisions are made by that farm family and where the capital invested in the farm unit is either owned or controlled by the family. Agricultural policy in its main purpose should be directed to the establishment and the protection of this type of unit. This may be regarded as a rather loose definition; but with the varieties and kinds of farms in Canada, it is practically impossible to define it in terms of acreage, amount of capital involved, or such assets as livestock, machinery, etc.

There are, of course, people employed in urban areas who are part-time farmers as well as rural residents, and live on small holdings, earning all or most of their income in other occupations.

There are also people who, because of circumstances such as social outlook or other reasons, choose to live in the country and accept a low income and possibly a low standard of living as a price for that privilege. Such people may refuse or be unable to take advantage of opportunity for expansion or change even when it is provided. It may be that the most practical solution would be to see that their children receive adequate educational and recreational services, with the hope that in future social problems in these areas will lessen rather than increase.

These categories are small, and what must primarily concern us is the very large number of farmers who have a standard of living that is low in terms of the present Canadian economy and steadily worsening in the face of an expanding economic activity in the country as a whole. If there are to be changes in farm size or in production patterns, the prime and first objective should be to improve the financial condition and the living standards of farmers.

Quality food production and volume of food production is not a problem. It has already been demonstrated that we are able to produce quite easily all the food that our people need. The real problem that has developed for farmers is that of maintaining a standard of living in terms of material goods, education, and local services that will enable rural people and communities to keep pace with the urban group within the Canadian economy.

The main methods available to influence farm size and farm well-being are long and short term agricultural credit and the establishment of a satisfactory price structure through such agencies as the Agriculture Stabilization Board, the Canadian Wheat Board, and other national marketing boards or provincial marketing agencies.

The amount of capital made available to the individual farmer will certainly be a major factor in deciding farm size.

If it is considered desirable that a family type farm should be maintained, or if a desirable standard of living for farmers is to be realized, farm product price must be a known and established factor within the farm economy. Farm prices must be kept in line with production costs, even as wage levels are kept in line through the bargaining of labour unions, and as profits and operating costs of the large industrial concerns are protected by present commercial pricing practices. Any farm credit program will probably fail in its objectives if farm earning power experiences unfavourable disparity in the cost-price relationship, causing the farmer's earning power to deteriorate.

Any contemplated change in farm size will necessarily have to proceed slowly for a number of reasons. One is the impact on the social life within the community. If this is disrupted too rapidly, social dislocation will bring an unfavourable effect on communications, roads, schools, social and business life, as well as to the institutions which people have established such as churches, co-operatives, credit unions and farm organizations. The effect on these institutions and on family and community life should be studied. Research should be carried out to examine the full impact that will be felt in the rural communities as a result of changes in size and method of operation of farms. It must also be recognized that people in the older age groups will be very reluctant to change from a way of life in which they have spent the major part of their years. Therefore, one of the prime objectives should be a high standard of education in rural communities so that the younger people and children will be able to adequately adapt themselves to our changing society and fit into that society if they are not going to stay on the farm. This will require close attention to schooling and recreation. In many places additional rural educational facilities will be needed.

Certain steps could be encouraged on a local level without major disruptions, such as:

(1) The joint use of machinery and equipment, where practical, could be encouraged.

(2) Wherever possible, marginal land could be acquired by the state and utilized as pasture or woodlot, and be made available for beef cattle enterprises or sheep grazing to the farmers in the surrounding area.

(3) Counselling service, as has already been pioneered by V.L.A., should be made available for reorganizing farm businesses. Certainly this would be necessary as a part of a credit program and it could also be made available to farmers who were not using long-term credit in order to make them more efficient in terms of land and capital use.

Credit planning and farm management are of prime importance in successful farming and agriculture, and should have a major place in any recommendations that this committee might make.

We believe the main objectives of farm policy should be directed toward individual well-being and better living standards rather than to increased production. For this reason we do not believe that vertical integration will bring any practical solution to the present farm problem, but may very well aggravate it in these respects:

- (i) The result of vertical integration will probably be production surpluses in some commodities.
- (ii) The result in some instances will be to remove the actual control of the farm enterprise from the farmer himself.
- (iii) The Canadian domestic market for food is not a large one, and if comparatively large portions of that market are supplied by a few

large production units, then the smaller farm units will lose earning power to the extent that the large production units take over in the market place.

We would suggest that you might consider subsidies for farm improvement, not primarily designed for the purpose of taking land out of production, but rather to improve land and keep it in good condition for this and future generations.

Along these lines, we would suggest:

- (a) That the farmer be financially assisted to plant trees in semi-arid regions to prevent soil erosion both from wind and water;
- (b) That, for similar reasons, he be assisted for the planting of grass and implementing other methods of soil conservation and improvement on an individual and community basis in all regions of Canada.
- (c) That subsidies be made available for home and ground improvements and modernization of the farm home, garden and surroundings designed, not for purposes of increasing production, but to increase the well-being of the farm family;
- (d) Some real help could be given in rural education, both to young people and in adult education classes at the vocational level. It is possible that this is one of the largest areas in which improvements could be made, since people must understand their situation before they will seek to improve it. It has to be kept in mind that each farm has different problems, and that in studying these problems the size of farm and the type of production would have to be considered.

Generally speaking, it would be advisable to choose enterprises on the farm which will keep the labor forces occupied during the greater part of the year where climatic conditions and soil use make this possible. Also, the enterprises chosen should be those most suitable to the farm, and where it seems practical, specialization in two or three enterprises would be more desirable than several enterprises which are not too well managed. The type of farming followed should be, if possible, homogenous to the neighborhood so that the maximum cooperation as between farmers is made possible. The over-all objective should be to have sufficient volume of produce sold off the farm to return a reasonably adequate income under existing price structures.

The fear of technology and what it has done, and can do, to the economic security of individual farms is uppermost in the minds of most farmers. The laborer, faced with a similar phenomenon in automation, has the protection of unemployment insurance and is usually able to change from one job to another without disrupting his home. The farmer stands alone, squeezed out of his job and his home, and usually with no special training that will enable him to take a place in industry.

Many other ideas suggest themselves but the important things are a comprehensive farm price program, credit and planning. If we were to have a national agricultural policy that would give good farmers a chance to make a reasonable profit, the tools will have been provided by which Canadian agriculture can be re-established and maintained on a sound basis.

All of which is respectfully submitted by The Interprovincial Farm Union Council.

I would respectfully submit that I do not think there is anything in the brief that could not very well be applied to both Ontario and British Columbia.

Senator HORNER: Mr. Chairman, I am very much impressed with this brief. Every bit of it seems sound and to the point.

There is just one point I would like to see emphasized a bit more, and that is the great advantage of the land itself. We all seem to think in terms of cash return, but from the bit I know about Alberta and Saskatchewan there are many things that money cannot buy, namely, the great advantages of the independence of the life on the ranch or the farm, regardless of the cash return. Let me say again that this is one of the most delightful, concise, sensible and logical briefs that I have heard presented to this committee.

Senator MACDONALD (*Queens*): Would you go so far as to say it was the best brief you have heard?

Senator HORNER: Yes, I would.

Senator MACDONALD (*Queens*): I will support you on that, and I will pay that compliment to the reader of it.

Mr. NELSON: Thank you.

Senator MACDONALD (*Queens*): I had some experience in Alberta between 1911 and 1917, and at that time I noticed that a lot of farmers were planting windbreaks. Have they kept that up and increased it?

Mr. NELSON: In certain areas, yes, and in certain areas, no. There are of course things happen; I know of one instance in my own district, for instance, where some five years ago a bad hail storm that covered an area of five miles wide and some 40-odd miles long, that absolutely destroyed windbreaks and shelter belts, some of them 40 years old. That is the worst disaster I have ever seen in any community.

Senator MACDONALD (*Queens*): I would say that was a disaster.

Senator HIGGINS: How long ago was that?

Mr. NELSON: I think it is five years ago. I just cannot remember the exact date of it. Mind you, this was just a small area. Other areas have had difficulty with drought, and one thing and another. Even in the drought areas I notice there are some people who have terrific windbreaks. They definitely have put more effort into them, but you will find they are the farmers who are in slightly better circumstances and who have the ability and the money to keep this up. When they get into desperate circumstances it is the windbreaks that suffer first. It gets to be a process of considering how much you get out of it, and if it is not enough to cover expenses then it has to go. It is a depreciating process from start to finish.

Senator MACDONALD (*Queens*): I have another question. I do not want to use up the time of anybody else, but in the Lethbridge area, which I will take as an example, at that time I doubt if they had irrigation. Irrigation has helped that part of the country tremendously has it not?

Mr. NELSON: It has made it a pleasure to see. Certainly it is wonderful, having regard to the windbreaks and the things that have been done that way. The sad part of it is that there are tremendous areas within the irrigation districts in Alberta that are the hardest-up areas that we have in Alberta. That may sound like a strange thing to you, but it is a fact. There are certain areas within those irrigation districts that are desperately hard up. That is, the proper facilities have not been provided to make the proper use of the facilities they have. That is a fact.

Senator STAMBAUGH: I think you can say it has taken about three generations to learn how to use irrigation properly.

Mr. NELSON: That is correct, and on top of that I think proper financing has never actually been put into it to develop it. There are certain areas, such as those on the fringe of the beet growing areas where they do not have beet contracts and where they are trying to make a living, where irrigation saves

them from difficulty. That is sure, but I know where there are areas in the irrigation districts at the present time which are four years behind in their water payments.

Senator HIGGINS: What sort of trees do you plant where there is heavy dust soil?

Mr. NELSON: It varies so much over the whole country that I hesitate to say. In our part deciduous trees, of course, are quite common, but when you get into the irrigated areas in southern Alberta there are more of the—well, I think it is pretty well the same all over.

Senator HIGGINS: Why I ask you that is because they found down in the dust bowl area in the States that the Chinese elm is the best tree.

Mr. NELSON: There are not many—

Senator HIGGINS: Well, they started there and they took 15 years to grow up, but once they grew up they stayed.

Mr. NELSON: There are not many of them in Alberta that I know of.

Senator WALL: I wonder if I might sharpen up some of the statements in the brief. I do not want to say that they are sweeping statements, but they are very interesting generalities. The brief states that the nature of the problem is two-fold. There is the problem of surplus production, and it gives the reasons for this surplus production; that surplus production would be an important factor in any national policy, and as one of the components of the national policy it is suggested that there should be a surplus utilization program whereby our surplus foods are used to build up the economy of underdeveloped countries.

I wonder if the witness would care to specify exactly what that means in terms of actual practice.

In other words, let me put it brutally: If because of mechanization and because of the new varieties of crops, and everything else, the country is going to be faced suddenly with a tremendous weight of surplus foods which we cannot use internally, whatever the price structure may be, and which we cannot sell externally because the costs of producing that surplus are higher than the returns that are going to come back to us, whichever way we may attempt to utilize this surplus, how does the Farm Union regard this problem and the extent of the national responsibility for it?

Mr. NELSON: Well, I think I would like to put it this way, that surplus becomes a problem in any part of the world when you have trade balances that are unequal. That is, you have the situation where the standard of living is at a certain level in one country and at a different level in another country, and it becomes more difficult for those countries to trade. Obviously, if you have a standard of living which is fairly equal in all of the countries it then becomes easier to trade goods and services from one country to the other, and this premise that we use here is if we can build these underdeveloped countries and bring them up to a higher standard then they would become potential customers, or become part of a world trade system.

Senator WALL: Let us assume that that will take place 25 years or 50 years from now. What is to happen in the meantime, and what is the extent of the responsibility of the average Canadian for this surplus? How do we regard that responsibility?

Mr. NELSON: Well, I think that we would have—all Canadians would have to look at it in the long-term view. We would have to take a long-term look at it, and determine for ourselves what we ultimately hope to get out of it, and within the scope of that we would have to determine the policies best

suited to fit into it. If we must curtail production in some manner then the nation as a whole must take the responsibility for that.

Senator WALL: I was going to follow that up with the second current problem of agriculture which you state to be the steadily rising costs of production. I gather that one of the cures for that will be the use of deficiency payments.

Mr. NELSON: That is one of our planks, or one of our main concepts. It has been bandied around quite a little bit here in the last while, and perhaps not taken as seriously as we would like to see it taken. It becomes a question, I think, in a country with as high a standard of living as we have in Canada, of whether we want to look at this thing from the standpoint of an abundance of food or whether we want to establish a pricing system based on a scarcity of food. In experiments which have been conducted it has been shown quite conclusively that the consuming public, even within one country, will pay as much as 50 per cent one way or another, depending on whether the product is scarce or whether there is a surplus of it, or just a small surplus. In other words, assuming that on the basis of 100 per cent you establish a certain price for food products, then the consumer will go 25 per cent above that with a 2 per cent reduction in production, and they will go 25 per cent below that level with a 2 per cent increase over and above normal requirements.

Now, the question in our minds is this: Is our nation prepared to use the scarcity concept to establish the price for the product, or are we going to maintain a full realization of our needs in the way of food by subsidization or by using deficiency payments.

Senator WALL: Internally, or both internally and externally?

Mr. NELSON: I would say that we would have to concentrate on internal matters, and determine what we require for export markets. It is the responsibility of the nation as a whole to determine whether they want to do that or not.

Senator WALL: I am not trying to be critical. I am trying to sharpen this up in my own mind too. I am most sympathetic with respect to No. 3, but then you hit No. 4, and the latter part of it deals with enabling export products to be competitive in world markets. Now, if our price of production is swollen artificially only by inflationary process, that is one aspect of it, but if it is a problem of another order, then ostensibly we would have to use deficiency payments.

Mr. NELSON: Yes, I think that is true. But then you get into the question of determining what the nation requires. Up to the present time our policy as a nation has been to support various types of products. We support industry and a number of other things. As a matter of fact it was estimated that last year it cost the nation about \$1 billion to support Canadian industry.

Senator WALL: Yes, I have heard that.

Mr. NELSON: Mind you, we don't say this is bad. But the principle is this. We take something to maintain the largest number of people, and create a nation able to provide a very high standard of living. If we are required to export a certain amount of foodstuff, then this nation has got to find ways and means of doing this other than by an inflationary way.

Senator WALL: I will yield the floor while somebody else asks questions.

The CHAIRMAN: In spending the \$1 billion you spoke of to support our industries, we are building up our own local markets, are we not?

Mr. NELSON: That is right.

The CHAIRMAN: So in that sense we as farmers are helping ourselves by allowing this to continue.

Mr. NELSON: I think that is true but we must bring agriculture within the scope of this policy and determine how agriculture fits into it to the best advantage of everyone concerned. Someone has broken down figures presented in the last budget to show how the Government proposes to spend each dollar:

Welfare	28 cents
Defence	27 cents
Debt Charges	11 cents
The Provinces	7 cents
Public Works	4 cents
Post Office	3 cents
Agriculture	2 cents
C.B.C.	1 cent
Others	17 cents

In other words, here is a means of distributing the product in such a way that you presumably get the best use of the resources of the whole nation. When you consider that agriculture now is only receiving 2 cents of that dollar, I think there is room for increasing that amount without creating what you might consider to be an inflationary trend in the whole concept.

Senator BUCHANAN: Your proposal is merely to predetermine exactly what the nation requires in the way of food products and then arrive at the total amount of money required by our farming community on a reasonable basis?

Mr. NELSON: That's right.

Senator BUCHANAN: And pro-rate it over different products to arrive at unit prices?

✓ Mr. NELSON: Yes.

Senator BUCHANAN: If we were to do that we would not necessarily have to export at all, but we would have to control our—

Mr. NELSON: Internal production.

Senator BUCHANAN: Yes, and we would also have to control the sale by each individual. He would have to be put on a pro rata basis. It is rather complicated but it could be worked out without being inflationary, I would think.

Mr. NELSON: You would have to recognize, first of all, that these commissions which have been sitting during the last several years have pretty well determined that within the next ten years the requirements for the domestic market will be so tremendous it will be a question of whether we can maintain production to keep up with our internal consumption. I do not include the production of wheat in that statement.

Senator BUCHANAN: I don't think it is as serious as it looks.

Senator WALL: Which commissions are those?

Mr. NELSON: Well, when I come to think of them—

Senator STAMBAUGH: One of them would be the Fowler Commission.

Mr. NELSON: The Calgary Power Commission conducted an investigation some three years ago and came up with some important findings on that score. It was an interesting inquiry. The F.A.O. have also made studies of this nature. I was thinking of the Gordon Commission.

The CHAIRMAN: Mr. Nelson, you might explain how your idea of deficiency payments might to some extent control production.

Mr. NELSON: By putting a ceiling on the amount that anybody could get out of the public treasury you would in effect put a sort of stabilizing factor

into production and you might well get away from putting complete controls on products. We visualize this but it could only be achieved if production is maintained in the country itself.

Senator BUCHANAN: On the other hand, if you put your controls on an individual basis, you will certainly cut the large farmer down to size or else he will be allowed to earn so much money for each member of his family or something of that sort.

Mr. NELSON: On the basis of deficiency payments I don't think it necessarily means cutting anything out from anybody. It is pretty well agreed that once a farm gets over a certain size it is able to function with less return per unit of production than a small unit normally can. I do not entirely agree with that concept. It is one that has been more or less accepted. Integrated production is generally considered to be more efficient. I am inclined to think that as long as a family farm is properly set up and the family is ready to exchange some of its services for the benefit of being able to live on the farm, then I doubt whether integrated production could seriously compete with that type of thing.

Senator INMAN: I would like to ask a question. I was in the west last week and noticed in the paper that there are going to be two million acres more sown of grain—wheat, this year. I wondered under the circumstances what the explanation of that would be?

Mr. NELSON: The explanation, of course, lies in the fact that during the past number of years there has been a change-over in production into other products, that is, small seeds, and one thing and another like that. Because there was too much of a change-over, this became surplus. At the present time, with the exception of flax, the rest of these products have now become surplus. For instance, as a matter of fact they do not want Durham for the next year at all. The price of small seeds, such as rape and mustard, has gone away out of sight, and for that reason in self defence they have had to go back into wheat production to maintain themselves at all.

Senator McGRAND: There is a question I should like to ask. In all this investigation and research you have done as far as the western farmer is concerned, what findings have you ever made to indicate the amount of wages that a farmer must pay if his son is staying on the farm with him? A moment or two ago you spoke of the family staying on the farm. The question is what are the wages the average western farmer can afford to pay his family in order to keep them on.

Mr. NELSON: Well, mind you, we have not been able to do that kind of research work. We wish we could if we had the finances.

Senator McGRAND: It is very important, do you not think so?

Mr. NELSON: It is, definitely. We would certainly like to have that sort of thing done. Actually, all we have to go on to any great extent are figures from the Prairie provinces, and I think you gentlemen are familiar with them. The figures come from the DBS. This has to do with the breakdown of our farms and the amount of taxable income within those areas, and while it does not exactly get at what you are driving at, it does give you some picture. In Manitoba in 1946, according to the census, it was 54,448 families; in 1951, 52,383; in 1956, 49,201. That represents a total of 9.6 reduction in number of families.

Senator McDONALD: What was the output in acreage on the farms there?

Mr. NELSON: That is not broken down here. But is not as much as you think it is. You might think it is the lower ten per cent group that is hard up, which is living on the farm, but that is not the case. Those hard-up people are still hanging on, they are still there. It is rather the fellows up above

that find opportunities some place else that are better than on the farm, and are moving out. Obviously it is probably divided up, and there is a certain increase; but I am amazed at the number of farms still in the small farm category. As a matter of fact, there are 64,038 grain growers that reported 300 to 599 specified acres; 63,272 with 100 to 199 specified acres; and 31,299 had 99 acres or less. Now, actually these figures have not changed as much as you think they have, and you might think this 9.6 spread over the whole thing does not change the picture.

Senator McGRAND: Could that information be obtained by the proper question being asked, within the next census taking?

Mr. NELSON: Yes. You can get it in a sense, but there again you have this fluctuation. You cannot specify that just because it happened last year it will be the same this year. I would say that it has to be a continuing thing for five or ten years before getting a clear enough picture of what is happening actually to be really on safe ground in knowing what you are going to do.

Senator McDONALD: May I ask Mr. Nelson a question? With regard to the family farms in your neighbourhood, where you know them, the places with the average fertility, what size does that farm have to be to be an economic unit?

Mr. NELSON: Well, in my particular area, with proper finance and proper managerial ability, it would be quite possible to make a decent living on half a section to three-quarters of land. As a matter of fact, a half section could be a very good farm for anybody to live. You probably wouldn't drive Cadillacs, or anything like that, but you would make a very nice type of living, provided you were able to finance it properly; but there are certain areas in Alberta where you would have to have I would say not less than two sections.

Senator McDONALD: Where the soil would not be fertile?

Mr. NELSON: Well, not necessarily fertile, but dry conditions. There are areas in Alberta that are very low producing, that if you could put water on them you would get tremendous production, but conditions in every area govern what you can do.

The CHAIRMAN: Have you one or two problem areas in Alberta where the general community is hard up, or is that just scattered through every community?

Mr. NELSON: I would say it changes from year to year. One year you might have a pretty fair return in a certain area, where the people seem to get on their feet fairly well, and the conditions change somewhere else. In these irrigation areas it is chronic, and it will not change until you do something different with the area—find some product for these people to produce that they can sell. Mind you, there is a start being made in that they are developing pasture areas around the outside of it, and they can maintain a certain number of cattle in the wintertime and pasture them out on the pasture land in the summer. This I think is a partial answer to this particular area.

Senator McDONALD: Outside of irrigation, where there are failures they are caused by those elements over which we have no control?

Mr. NELSON: That is correct.

Senator McDONALD: Now, tell me, Mr. Nelson, how many of these family farmers on these 320 acre farms, or whatever acreage they consist of, to be economic units, would lack credit to put themselves in a better position to raise their standard of living? Have they really the credit to go out and get proper machinery?

Mr. NELSON: I think, frankly, that a lot of them have had too much credit in the last few years, and the difficulty has been rather that the price of their products has been too low to properly maintain a credit program that is within a small unit like that. I think I have to qualify it by saying that in order to get a really good credit program and the pricing program working together, a quarter-section unit is probably not realistic. I was just talking in terms of being able to maintain yourself on the farm, and reasonably well; but on the basis of a national program you definitely could not maintain yourself. You would have to go a little larger than that. Then the question of credit becomes important, but you cannot escape the necessity of maintaining a proper price for the product. All the credit in the world doesn't matter, if you cannot maintain a proper price.

Senator STAMBAUGH: I think the reason many of them have not paid their debts is that the price of their products which they have raised has gone down. They have been pretty good managers.

Mr. NELSON: That is right.

Senator STAMBAUGH: But the cost of what they buy has gone up by leaps and bounds and what they have to sell has gone down.

Senator TAYLOR (*Westmorland*): But that is not the entire answer. Apparently in these irrigated areas one farmer will be doing well and another not so well. Would the area where farmers are not doing so well be classed as an area of smaller farms?

Mr. NELSON: Not necessarily, it just happens to be within an area where they have contracts for their products. Any of them that have contracts have been doing well.

Senator STAMBAUGH: That applies to crops of sugar beets, beans and peas and intensive farming?

Mr. NELSON: That is right, but there are certain areas within the irrigation districts that are not particularly conducive to garden crops, and it is amazing that you can have that much variation in a certain area.

Senator TAYLOR (*Westmorland*): What would that be due to? Soil conditions?

Mr. NELSON: The climate. There is just enough difference, for instance, in the frost-free days and one thing and another that prevent them from producing garden crops, so in reality they are dependent on growing pasture crops, and in doing that it is found that irrigation becomes a costly means of developing that kind of crop. You must be able to maintain cattle and you cannot afford to pasture cattle on irrigated land.

Senator STAMBAUGH: Nor raise grain either.

Mr. NELSON: That is true.

Senator STAMBAUGH: I would gather from what you say that if those who have a hard job raising their standard of living, and it may be they do not want to, because a study in southern Alberta showed that quite a percentage of those farmers did not want to change, a lot of them said their farms were about right and they did not want to change. Now, if these fellows did want to change they probably could manage, could they, to get a credit to increase their acreage, to get an economic unit and better machinery?

Mr. NELSON: I do not think the credit plan is available to increase the size of the units too much. The farm loan board has not been effective for the small farm. It has been effective for the larger farms. In the smaller farms, in order to bring an uneconomic unit up to size the farm loan board has not been effective. The banks in certain cases have helped but not in an overall way. The sad part of it is, and this is the part which I do not like

about it, there has been far too much of this being carried from year to year. This is growing, and I am afraid this burden is going to get so big soon that it is going to force these people out of business from sheer weight. I think that unless you balance this thing and get credit available that can make it possible to increase a unit, to make better use of this machinery when you do get it, you have an imbalance. Mind you, it is getting better. Manitoba, Alberta, and, I understand, Ontario has started a program to help these people out. With a little imagination and working together with the federal Government I think we are not too far from a credit program.

Senator WALL: I may be a bit mischievous in saying this, but we are in a conflicting situation where we may wish to improve production by various means in order to increase surplus.

Mr. NELSON: That is right, there is no question about that.

Senator WALL: Mr. Chairman, could I ask Mr. Nelson to refer to his objectives on page 2, which are very well put. Mr. Nelson, would you care to comment on the problem of who is to be responsible for the things to be done to classify the various land resources so that we would know which are to be used for forests and which are to be used for grass lands, which are to be good farm lands, and if I may throw you a little further, on page 8, you say emphasis should be directed towards removing marginal lands from production. That is predicated on something already. Would you care to comment on that aspect of the problem?

Mr. NELSON: I would like to have avoided it if I possibly could have, but I am not going to for this reason, that this is a problem, and actually it is a case of educating people into understanding what the problem is. This is part of our problem, in that our average person on the land has not yet become aware of this thing and we had this brought so forcibly to our attention in Alberta just recently.

Senator WALL: Could I interject and say you are probably begging part of the question when you say that your people realize the gravity of the situation.

Mr. NELSON: Could I say what?

Senator WALL: Begging part of the question.

Mr. NELSON: As far as we are concerned we do realize that leadership in education in this country is definitely a must in the whole program and the sad part of it is we are ten years behind the times.

Senator McDONALD (*Kings*): You are right there. Mr. Chairman, could I say this, that the provincial departments in their extension services can do a great deal, and I think these men have to be trained properly in management. I think the lot of our farmers, especially the ones on small units, that what they need more than anything else today is education, and a lot of that education can come through proper farm management officials of the provincial departments.

Mr. NELSON: Of course, you see there is this fact and it is one which we cannot escape: the average age of the average farmer is going up every year and it is only going to be a question of time until the effects of old age are going to weed these people out of the picture, and what we have to look at is to provide the facilities for the younger group to take this thing over, and I think we have by and large a group that is coming up that can fit into this category. They are better informed, they are better educated and more able to accept the responsibilities that go along with this thing than the people who homesteaded the areas and who have been working on their farms ever since, and beyond that they do not see too much except that they do know that during their lifetime all they have got is a few acres of land.

Senator McDONALD (*Kings*): A lot of these boys have been helped in the 4-H clubs.

Mr. NELSON: I think so.

Senator McDONALD (*Kings*): I wonder too if the governments could not do something by way of encouraging more boys, and sometimes girls, to go into the agricultural colleges to a larger extent than they have been doing. In Nova Scotia it is the exception to find boys that have had agricultural college training that do not make a good success when they go farming, and of more importance, they are leaders in their communities.

Senator WALL: Mr. Chairman, I would like to sharpen up this problem, that the immediate emphasis should be directed to removing marginal land from production. I said that was predicated on certain assumptions. I wonder if we could get a comment as to how the farm union seized that problem.

Mr. NELSON: Taking it out of production would of course mean taking it out of production of surplus. For the time being, grain happens to be a surplus product. There are certain marginal areas that could very well be put into grass for grazing purposes and the like.

Senator WALL: In specific measure, how would that be done? Do we see it being done by incentives or subsidies of some kind?

Mr. NELSON: Not necessarily, but credit is of course a part of it. Another part of it is finding ways and means in areas that are actually poor producing areas. I think you would have to provide the opportunity for these people to move into other areas, so that their land could be turned to grazing. In some cases it could work in connection with other types of program, like community pastures. Certainly, there are in Alberta certain areas that could be put back into forests.

Senator HORNER: That has been done in Alberta on a very large scale; formerly successful farms are now being devoted entirely to grazing, and expenses were paid to the people who moved from the land.

I may say that the members of the committee know—certainly Senator Stambaugh knows very well—there is no province in Canada with so many diverse conditions facing the farmer as in the province of Alberta. The province of Manitoba, where Senator Wall comes from, is mainly supported on the productivity of the soil and so on; but in Alberta, you may have a productive area where a man will become comfortably situated on a quarter section of land, whereas in other areas he would require thousands of acres, because the rain falls in strips or the area is particularly dry. I am thinking of the Acadia valley, which has heavily productive soil; if it gets a good soaking it takes some time for it to dry out and produce a crop. Not far away the land may have a gravelly sub-soil and requires a great amount of rainfall. So honourable senators will understand that no other province faces the diverse variety of conditions and circumstances that Alberta faces.

Senator TAYLOR (*Westmorland*): Mr. Chairman, I would like to ask Mr. Nelson if he would agree with my assumption, in line with what Senator Wall has said, that the answer to this problem first starts with the question of a national Soil and Water Conservation Act, as mentioned on page 7 of your brief. That ties in with the first paragraph on page 8, which reads:

"While this situation may not always be with us, immediate emphasis should be directed toward removing marginal land from production and protecting that which is in use rather than bringing new areas under production."

Is not the one fundamental thing we need a national act for soil and water conservation? My analysis of the situation is this: no national government can say this must be done or that must be done. I do believe there should

be a national act, permissive if you like, whereby provinces may pass similar legislation, set up organizations within the municipalities, so that you have the co-operation of governments at three levels, and so give the people the machinery you suggest on page 8. That is to say, in those areas where it is believed that land should be taken out of farm production and put into forestry or grazing, the local committees along with the provincial bodies would tie in with the national over-all policy of land and water conservation. Am I right in the assumption that that is back of your view?

Mr. NELSON: Definitely, yes. There is no practical possibility of our proposal on the scale we visualize it without it becoming a national program. Certainly, I think as far as water and land conservation is concerned—particularly water—it would be much better if it were within the Department of Agriculture rather than some other department, because agriculture is so vitally concerned with all types of conservation.

May I say that I do not want to leave any misconception at all. Very definitely, any of these programs must be on a national basis, as much as it is possible to bring it within the scope of the act. The other point is there is no intention on the part of any of this proposal to forceably or otherwise take any farms out of production, but rather make the means available whereby these people can get the things that are necessary for a better start.

Senator WALL: In other words, through education, through suasion and through facilities, you would hope they would make the decision.

Mr. NELSON: Yes. And as the younger generation comes along this is going to be a factor. We would not want to be another 10 years behind when this finally comes up.

Senator HORNER: Some years ago while on a trip to the Old Country I met a Mr. Davies, at that time, president of the World Government Movement, and a man who had travelled extensively. I met him again last fall in Paris, and I was most interested to learn that, although he had been for a long time leader of the Liberal party in the British house, he had relinquished his post as leader, but was still a member, as he told me, of an entirely rural constituency. He went on to tell me about conditions in Denmark and other countries. We have heard a good deal about the difficulties of producing hogs in competition with Danish hogs on the British market. And you do not need to tell me that the Danish farmer has persistently and consistently refused to accept one dollar of assistance in any shape from the Government. Their butter, pork, bacon, and what have you are not subsidized. This member for this rural constituency said to me: "They are subsidizing the farmers in my country to the tune of nearly \$300 million a year, and still they are buying Danish bacon and butter; it is because the Danes want to work to perfect their product, and to keep on improving it". He said: "I visited a packing plant where I saw 2,000 hog carcasses, and I could not tell the difference one from the other". "In England", he said, "they are finding a ready sale for their butter. They are selling it for what they can get for it". I was amazed. I said: "Do you think, then, the whole idea of subsidizing your farmers in England has been a wrong move?" "Yes", he said, "I am convinced that it is, and my constituency is entirely rural and I am still the member". I was very interested, of course. I told him of a Danish farmer I knew in Alberta who was doing exceptionally well out on the Bow River. He had the finest Jersey herd that I have ever seen in Canada for ruggedness, and so on. The Dane had a family of 19; they had a family gathering, and 16 of them were able to get back, some from Australia, some from New Zealand and some from California. They all flew over for this family gathering. I thought he was doing exceptionally well. He said: "You know, Horner, I would go back to Denmark. Everything there is wonderful. The farmers are all living a wonder-

ful life. They have paved roads right to their doors". I said: "You are doing awfully well here", and he said: "Yes, but I would go back to Denmark". Now, they have survived all the price supports and everything else. I said to him at that time: "Yes, but you have a quota basis"—this was a few years ago—"on your hogs". "No", he said, "they may sell all they can", but I do know at one time there was a question of a quota. Each farmer could deliver so many hogs and no more. If he tried to deliver any more he had to take them home and dispose of them in any way he wished, but I was told that at that time there was not a quota.

The thing that amazed me was that this little country could do this. We have many Danish people in western Canada, as you know. We have Danish farmers in Alberta and in Saskatchewan, and all over, but here was this fellow who said he was willing to go back.

The CHAIRMAN: Well, the whole answer to your argument there is that they have a ready market and a close market.

Senator HORNER: Well, sometimes it may not have been so ready, but they have survived anyway, and they refused to accept any Government assistance of any kind.

Senator STAMBAUGH: They have no taxes for defence.

Senator WALL: Yes, they have.

Senator STAMBAUGH: Very little. You see more motorcycles and bicycles over there, too.

Mr. NELSON: I think there is one fairly simple answer to it, and that is that quality is a big factor.

Senator HORNER: Yes. He told me that every British housewife, if she wants something special, chooses Danish butter and Danish bacon because of the quality.

Mr. NELSON: But let us not forget that Denmark is essentially an agricultural country.

Senator HORNER: And so should Canada be an agricultural country.

Mr. NELSON: I would like to comment on the English version of this. England is not necessarily an agricultural country as such. It is an industrial country, and I think that England, or Britain, as a policy of the nation, has adopted the principle of subsidizing agriculture purely to maintain food production in that country, so that actually the two are not comparable. Before I close, I want to add that in Alberta we have an unfortunate situation that was brought about by a surplus of grain that we could not market in any other way than to market it through pigs.

Senator HORNER: I merely mention it to tell you that here is a member of Parliament representing a rural constituency to whom this whole idea of subsidizing agriculture is in his opinion a mistake—that it has not benefited Britain at all. That was his story to me, and he has been a member for 30 years and apparently cannot be beaten in his rural constituency.

The CHAIRMAN: Senator Wall, you have a question you would like to ask.

Senator WALL: I must say that our witness has been a wonderful sport in trying to field all the questions, but I assure him we are asking them with a sincere motive.

On page 11 you mention something about the joint use of machinery and equipment at a local level, which is fascinating to me, and I would like you to make a comment on how the Farm Union sees that problem and how it might be handled.

While you are on that would you care to define for me the word "subsidies" on page 12, and tell me whether you mean by "subsidies" what I am thinking

of or whether you mean by "subsidies" the loan type of subsidies which may be repaid after by the people—loans for planting trees, grassing lands, improving homes and grounds, and the modernization of the farm and home, and so on? Perhaps you would comment on the first, and then on the definition of the word "subsidy."

Mr. NELSON: Well, with regard to the question of the joint use of machinery, that is a pretty complex sort of a thing, and it is not particularly feasible in many areas, but it is something that I have given considerable thought to, and it may be facetious to try to present it here, but in any attempt to re-align our agricultural people—that is, to distribute and to make the best possible use of the facilities that we have—I have often wondered whether it would be possible, because there are certain areas that are not conducive to large farms and where it is impossible to use large machinery and such things to any great extent. I am just wondering if rather than allowing some person to go into these areas and disrupt the whole thing by acquiring more land than he can properly use, we should encourage him to go into other areas where large production is more feasible, and see if we could direct our economy in these areas where small farms—and, incidentally, some people like to live on small farms could be grouped and where it would be economically feasible to provide machinery. Such a program would have to be organized. There would have to be an educational scheme.

Senator WALL: In other words, rather than an entrepreneur, as it were, using a combine to service seven or eight farms, the farmers would get together and own one jointly.

Mr. NELSON: That's right, or there could be a private combine facility for a certain area. There are a number of ways to look at it.

Senator BUCHANAN: That is what was done before with threshing machines. But nowadays all the farmers want to have the combine on the same day.

Mr. NELSON: Except that in this process each farm got too big and where you have three or four quarters on a farm it becomes pretty difficult to distribute the machinery. I am thinking of people who want to live on quarter sections and small land holdings. I think there is a place where with proper treatment this would be feasible. As I have said, this is something which is worthwhile thinking about.

As far as subsidies are concerned we have suggested in our brief that the farmer be financially assisted to plant trees in semi-arid regions to prevent soil erosion both from wind and water. Now, from a strictly shelter-belt point of view I would say that proper credit facilities are required. However, there are certain areas where under a national policy you set up strips of trees that would become part of soil conservation program. This should be a national program. It might mean the purchase of certain tracts of land.

Senator WALL: And the same principle would apply to grassing.

Mr. NELSON: Yes.

Senator WALL: What about home improvements and modernization of farm homes?

Mr. NELSON: That is strictly a question of credit.

Senator MACDONALD (*Queens*): At the present time is there not a federal Government farm policy for the improvement of farm buildings?

Mr. NELSON: That is right. It means you must have an overall farm policy, a policy that encompasses the whole field and makes it possible to utilize to the best advantage everything you have.

The CHAIRMAN: Mr. Patterson, do you have anything to say?

Mr. PATTERSON: Yes, Mr. Chairman; first of all, I would like to comment on the point raised by Senator Wall a moment ago with respect to the co-operative ownership of machinery. I had in mind what Honourable Senator Buchanan mentioned a moment ago about the ownership of threshing machines, and so on. They did a very commendable job but at the same time I suppose a lot of bad neighbours turned up as a result of these threshing enterprises. However, we have a very notable example in a community south of Winnipeg where the boys got concerned about having too much machinery and too much overhead, and so on. They went out and bought machinery between them. I can't tell you how many were involved but they bought a baler and within two years they had it paid for out of an assessment each one was charged for every bale they produced. At the end of two years they had the baler paid for and had a substantial bank account which they were going to take and put into an ensilage machine. Perhaps it is just a matter of getting back to more co-operative thinking with respect to some of these pieces of agricultural equipment, which is something we have not been used to in the post-war scramble by everybody to become independent.

I wonder if I might make a comment with respect to a comparison an honourable senator made a few minutes ago. He was talking about the situation in Britain and Denmark with respect to subsidies. I think the success of the Danish program can be traced to their extension work and their folk school program they carried on to promote community interests and to educate young people in all the facets of agriculture and community life.

Mr. NELSON: And marketing.

Mr. PATTERSON: And marketing. From that basis they went ahead and built their industry, and their agriculture has continued to progress.

Coming back to our own brief, I think there are two points we might pick out of this statement tonight. One of them is, as the Honourable Senator Taylor has mentioned, the need for a national program of conservation to determine the productivity of land, the value of land, and so on. Goodness knows, we have a lot of facilities for doing this. Then, having done that, we would find that a lot of our people are trying to make a living from growing wheat on land which is not suitable for that purpose. Following the V.L.A. program these farms could be encouraged to go into the growing of grass and the raising of livestock. This would not take too many more acres, but they would need capital to change over from the type of production they were in to the raising of livestock. They would have to seed and grow the right kind of grass.

Our submission is that not only are we interested in the production of foodstuffs but in order to produce good food you have got to have the proper minerals and substances in the ground if the product is going to be good when it comes out. Having set up a national program and got it functioning, then the next point of concern, which is woven through this submission, is that of a national agricultural policy.

Senator HORNER: As to your statement about the land, that really should start with the provinces for it is under their control. This policy should be initiated within the provinces.

Mr. PATTERSON: Well, I would think that this very study being conducted by the Senate could give tremendous leadership to the provinces and indicate to them some of the things that could be done beyond what they are doing now, and perhaps indicate how their present efforts could be better coordinated.

Coming back to the national agriculture policy. In that is set up the machinery by which in an area it would make it possible for the average farmer to achieve a level of production and a level of income that is commensurate with the standard of living in the country in which we live. Having

done that and having made those things possible, then we still leave with the farmer and with the country the initiative to achieve what is set up for them to do.

Senator McGRAND: You made the statement that the purpose is to raise farm income so that it will be commensurate with surrounding industry. Do you think that is possible with the ever-increasing standard of wages that goes on in industry?

Mr. NELSON: Definitely no. Actually, you can bring in a certain income, and if something else changes again to bring you back, then you obviously go back.

Mr. PATTERSON: May I add to that? We speak of the use of deficiency payments. Now, deficiency payments is a measure by which you measure the difference between what are the level of prices, commodity prices, on the Canadian market as dictated by the standard of other countries, which in effect directly or indirectly establish the prices in Canada. It is necessary for the farmers to maintain their fair share of responsibility within the economy, the difference between costs and prices received is made up in the form of a deficiency payment, and it could come out of that \$1 billion we were talking about a moment ago.

Senator McGRAND: Would you place this deficiency payment as something that is the counterpart of unemployment insurance, where people must live when they don't work? Is it on that sort of basis?

Mr. PATTERSON: No, not altogether. It is the means of making up the difference.

Senator McGRAND: Something to enable them to make a livelihood?

Mr. PATTERSON: Commensurate with the cost of production that establishes the standard of living in the country.

Mr. NELSON: Basically the purpose of deficiency payments is to bring the cost within reality and to a comparable level of prices.

Senator McGRAND: The price of those things is summed up in farm income?

Mr. NELSON: Yes.

Senator McGRAND: Well, if your farm income is not sufficient, you build it up. If not, he is unemployed and gets—

Mr. NELSON: An unemployment insurance, that is true. It is part of the levelling-up process.

Senator BUCHANAN: Where does that \$1 billion come from? Does it come from the air, or is it an absolute price that has been arrived at?

Mr. PATTERSON: You will find that in the report of the Gordon Commission.

Senator BUCHANAN: They arrived at \$1 billion?

Mr. PATTERSON: It is several thousands of dollars below the \$1 billion in actual figures.

Senator BUCHANAN: What all is taken in on that?

Mr. NELSON: Well, the tariff protection that certain commodities have in Canada is included in the price of goods. It is not necessarily tariff paid on them.

Senator BUCHANAN: What about the 17 per cent increase on freight; is that in the \$1 billion.

Mr. NELSON: No.

Senator HORNER: You men are fairly young, but some of us have lived for a long time. You speak of a standard of living. Now, in the homestead days men having an equal start would differ in their standard of living. One man would have a good standard, while another would have one like a tramp. In those days I knew a fellow who was a carpenter and a good builder, but

he could not complete his homestead shack, because he never got a door on it, and the homestead inspector would not allow it, because he had a blanket for a door; but he was a good carpenter, and he never got the door made. Now, when you think of a standard of living, it always annoys me to think of it, because in all my life I have watched that whole process of fellows who lived on a little and had a good standard of living, and others with quite a lot who had a poor standard of living.

Mr. NELSON: I agree with you one hundred per cent on that, but let us get down to fundamentals. First of all, a lot of these people you speak of are in this ten per cent category that we cannot get to, there is no way we can do so, and nothing we can do about it; it is a social problem.

Senator HORNER: There is nothing you can do about it. It is an old law that man is that kind of an animal to which the old saying applies, "Necessity is the mother of invention", and if he does not need to work he will not work.

Mr. NELSON: All we ask for is equality of opportunity for all citizens.

Senator HORNER: I agree with you, but after that what will they do with the opportunity? Some will pass it up, and others will take advantage of it, human nature being what it is. That applies to a society with free enterprise. If you want to have a dictatorship, well, if you were to allow me to run it. I would drive a stiff rod and everybody would have to toe the mark, I suppose; but we live in a society where every man is free to come and go.

Mr. PATTERSON: I might tell the honourable senator that there is an old axiom which bears upon the reference you are making to the homesteaders, and a carpenter you mentioned. It is this: "The cobbler's wee-un's are always the poorest shod"...

Senator HORNER: Yes, and the carpenter never had a roof on his house.

Mr. PATTERSON: But in this program you would make it possible to set up a program for the average farmer to achieve that level of income.

The CHAIRMAN: Time is getting along. Are there any more questions?

Senator MACDONALD (*Queens*): I have one more question to ask. We who belong to the agricultural fraternity are probably interested in the stockpiling of farms products in Canada. Would you have any figures on that? Have we anything to worry about as to the future of the agriculture outlook in so far as cold storage plugging up, and so forth. You know what I mean?

Mr. NELSON: Well, for the moment there are certain sporadic things that are a problem. For instance, there is a problem with hogs in Alberta. There is a floor price on hogs, but I have noticed that in the last six weeks in Alberta only on a few occasions, have hogs reach the floor price, which would indicate to me there must still be some buoyancy in the market some place; that is, the west coast market is probably absorbing it. The Government is faced with a surplus of hogs, and I presume it is going to be faced with this surplus until some change comes about in some manner or other. I do not think it is a serious matter myself. The Government has a stabilization fund and I would like to see them use that fund to the extent that we can get a support program established whereby it would become possible to direct production more effectively than we have in the past. That means taking grain into consideration because we cannot continue pouring this grain into poor quality hogs and expect to get away with it. We have developed a process where hogs are easy to get hold of and we have a lot of grain and we do not care whether the hog being fed is grade B or grade C hog, we just shove grain into them.

Senator TAYLOR (*Westmorland*): Mr. Chairman, I would move a hearty vote of thanks to both Mr. Patterson and Mr. Nelson for the very fine presentation of a practical approach to this whole problem.

Mr. NELSON: Thank you, honourable senators, for being so patient with me. The committee adjourned.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, Thursday, May 7, 1959.

The Special Committee on land use in Canada met this day at 10.30 a.m. Senator ARTHUR M. PEARSON in the Chair.

The CHAIRMAN: Honourable senators, we have a quorum and we are ready to proceed. We have with us this morning the Honourable I. C. Nollet, Minister of Agriculture for the province of Saskatchewan. He is accompanied by his Deputy Minister, Mr. W. H. Horner.

Senator BRADETTE: Is Mr. Horner related to Senator Horner?

The CHAIRMAN: Yes. He is a nephew of Senator Horner.

Senator BRADETTE: Good for him.

The CHAIRMAN: We also have with us this morning Mr. Grant Mitchell, research economist with the Economic Advisor and Planning Board, Saskatchewan. Mr. Nollet, we would ask you to address the committee now. First of all, would you be kind enough to give the senators a description of your training background and how you attained your present position? We would like to hear something of your ability as an agriculturist.

Hon. Mr. NOLLET: Thank you very much. I cannot tell you just how I got to this position. Like a whole lot of other people you wonder why you did get in. You go through an awful lot of trouble to do so. My general background has been that of farming. I have farmed and ranched all my life. My people settled in the state of Montana where my father took up ranching in the early days, and from there I came to Canada and took up ranching in northwest Saskatchewan in the Lloydminster district. I ranched there until I became Minister of Agriculture for Saskatchewan. I also served on the municipal council in that area and I worked with the various farming organizations and co-operatives until finally I got into the provincial Government.

Honourable senators, this is a rather lengthy brief and I apologize because due to the shortage of time we were unable to go over the brief and condense it to make it more readable. There will be quite a bit of repetition throughout as we deal from section to section. I will commence to read it and skip wherever I can in order to save time.

INTRODUCTION

The Saskatchewan Department of Agriculture is pleased to have the opportunity to present to the Senate Land Use Committee the views of the Department on the small farm problem as it exists in the Province of Saskatchewan. The Department had been informed by your Chairman that you had agreed to focus your attention on the problems of the small unit farmer at this session while retaining the scope of your studies within the general framework of the subject of Land Use. We agree with the Committee that this is a most important segment of Canadian agriculture and one which may not have received the attention it deserves in the past.

Small, low income farms do not promote proper land use. On such farms, the farm family can only approach a reasonable standard of life by making the most extractive use of land. Proper conservation implies, at the minimum, that

the soil resources of our nation should be maintained and that serious depletion does not occur. The practice of conservation then means that a certain amount of possible extra income is sacrificed each year in the interest of maintaining the productivity of our agricultural soils. This, the small, low income farmer cannot do without reducing an income which is already too low.

We further agree with your Committee that solutions to the small, low income farm problem can be formulated only if we carefully examine the trends occurring in our farm economy and isolate the basic causes of the problem.

For an accompanying brief, relating more particularly to land use, we have attempted to relate the influence of physical factors on the small farm problem and to make suggestions for improvement through a land use and water conservation program.

This brief is organized as follows:

- I. The Development of the Agricultural Industry in Saskatchewan.
- II. The Extent of the Small Farm Problem.
- III. The Causes of the Problem.
- IV. Corrective Programs.
- V. Problem Areas Requiring Investigation.

1. Development of the agricultural industry in Saskatchewan.

Most of the soils of the province have been farmed for less than 60 years. Comparatively few homesteads were taken up before 1901. Increased tempo of settlement resulted in almost 82,000 homestead entries between 1902 and 1905, and when the province was inaugurated approximately 100,000 homesteads had been taken and 1,638,000 acres were in crop. In the next thirteen years, there were almost 192,000 homestead entries and almost 16 million acres were under cultivation by 1918.

The homestead policy, based on the owner-operator philosophy and the production experience in more humid areas, settled the province in $\frac{1}{4}$ and $\frac{1}{2}$ section farms. Dry weather and low yields in the South-western part of the province in 1907 and 1914 and especially in the 1918-20 period gave ample evidence that these farms were too small, and almost from settlement farmers struggled to enlarge their holdings.

The traditional one-crop economy of Saskatchewan can be laid at least partly and perhaps largely at the door of early settlement policies. Problems of water supply and livestock fodder have been too much for many of those situated on smaller farms to cope with. The rancher, with substantial holdings, has traditionally maintained reserves of grass and of hay. His farmer neighbour on a $\frac{1}{4}$ section to $\frac{1}{2}$ section farm was forced to devote every acre that could be broken to the crop which produced the highest per acre return—Wheat. The small farms created in the vast semi-arid region, so well described by Capt. Palliser in 1859, left no room for accumulation of the feed and cash reserves essential to survival of the inevitable years of drought.

Almost since settlement, Saskatchewan has been unique in the requirement of feed and seeding supplies and direct relief to farmers during crop failure years. The first major program was in 1908 when seed grain advances to the value of \$566,000 were required. Again in 1914-15, seed grain and feed grain and fodder relief involved expenditures of \$8,655,698. The years 1918-20 saw three and a quarter million dollars spent for the same purpose. The vulnerable position of the farms in this area was finally emphasized in the widespread severe droughts of the thirties. In 1937-38, fodder for stock was purchased in every province in Canada except the Maritimes, as well as in Montana, North Dakota and Minnesota and throughout that winter, fodder shipments ranged from 1,200 to 1,800 carloads per week. Even with assistance from the Dominion

Government during the period, the debt of the Province of Saskatchewan was increased by \$105,987,570 as a result of financing relief programs to meet the requirements of a population settled on small farms in a semi-arid region.

A summary of expenditures for agricultural and direct relief and for assistance programs to meet drought situations is shown in Appendix A.

This appendix will show you that over the years \$187,359,995.69 was spent on relief, and of course that since 1939 since P.F.A.A. came into existence an additional \$153 million was paid out through that agency, making an amount totalling some \$340 million paid out in relief. So in one regard Saskatchewan is unique; we have the biggest relief bill in Canada because of our hazardous climate. This is a tremendous loss. We made a survey in 16 of the worst municipalities and we discovered there millions of dollars had gone out in wealth, and of course it is all a matter of proper land use and proper farm practices to endeavour as near as possible to meet these arid conditions under which we work.

In 1920, a Better Farming Conference, held at Swift Current, recommended a Royal Commission to inquire into "better and more permanent farming conditions". The Commission recommendations, presented in 1921, included:

- (a) That the Federal Government withdraw the right to homestead vacant Crown lands south of the C.N.R. railway from Lloydminster to Kam-sack.

Senator HIGGINS: Why is that?

Hon. Mr. NOLLET: Oh, it was considered that anything below that line was in the dry area, and homesteads—Crown lands should not be alienated for farming for cultivation below that line; and by and large since that time Crown lands have been released primarily for grazing, with the exception—

Senator HIGGINS: In other words, it is not good enough to grow grain?

Hon. Mr. NOLLET: That is right.

Continuing:

- (b) That existing vacant Crown lands be reserved for lease as grazing.
- (c) Expired ranch leases and some forest reserves to be made available for community pastures.
- (d) That a reconnaissance soil survey be undertaken.
- (e) That municipalities be empowered to prevent cultivation of lands inclined to soil drifting and to employ Agric. Reps.

There were other recommendations, but the above seem the first basic approach to fundamental problems that had been highlighted by experiences first in 1907, again in 1914-15, and finally by the widespread soil drifting, crop failure and relief requirements of the 1918-20 period.

These recommendations were generally implemented. Among the results were the commencement of the Saskatchewan Soil Survey and operation of the first community pasture in 1922, comprised of about 76,000 acres formerly leased by the Federal Government to the Matador Land and Cattle Company. It is still operated by the Province. The soil survey initiated at that time is reflected in this soil map we have brought with us.

On April 1, 1931, the natural resources of Saskatchewan were transferred to provincial ownership and control but the province, already deeply involved in the drought and depression, was in no position to undertake long range corrective programs.

In 1935, recognizing responsibility for errors of settlement of the provinces' lands, the Dominion approved the Prairie Farm Rehabilitation Act. In the same year, the Province passed the complementary Land Utilization Act.

The Prairie Farm Assistance Act of 1939, incorporated a measure of Crop Insurance that has proven of very great benefit to the small farms of the drouth

area. Amended several times, a recent amendment in 1957 provides for awards in crop failure years of up to \$4.00 per acre on behalf the cultivated area of a farm to a maximum payment of \$800 when the average wheat yield in a specified area is three bushels or less per acre.

Soils and Climate:

Almost the entire potential agricultural area of Saskatchewan is settled and has been the subject of a soil survey. The Saskatchewan Soil Survey, a co-operative arrangement between the Federal and Provincial Departments of Agriculture and the University, has been published in two parts as follows:

		Total area Covered by survey			Area of Soils Mapped in Reports
Soil Survey Report #12	106,000 sq. mi.		96,000 sq. mi. or	61,500,000 ac.	
" " " #13	15,000 " "		9,880 " " "	6,323,000 "	
Total.....		121,000 " "	105,880 " " "	67,823,000 "	

In addition to mapping and describing different kinds of soil, the Soil Survey established productivity ratings for each soil type, which are the basis of Saskatchewan's rural land assessment system.

The Province is divided into 5 major soil zones with approximate acreage in each as follows:

Brown Soil Zone	19,920,000 acres
Dark Brown Soil Zone	19,260,000 acres
Black Soil Zone	17,290,000 acres
Degraded Black Soil Zone	4,770,000 acres
Grey Wooded Soils	5,080,000 acres
Misc. Northern Soils	1,380,000 acres

Senator CAMERON: What definition do you use for degraded soil?

Hon. M. NOLLET: That applies to the northern grey bush soils where they have been pretty badly leached as a result of tree growth—sometimes called the transitional soil, half way between black and grey wood.

Senator CAMERON: Between the grey wood and black?

Hon. Mr. NOLLET: That is correct.

The prairie area of the province, corresponding generally with the Palliser triangle, includes the two Brown Soil Zones of almost 40,000,000 acres. The Park belt, including both black soil zones, contains about 22 million acres. The forest soils and Northern soils, most of which present particular fertility or drainage problems, include almost 6½ million acres.

April to October rainfall varies from about 10 inches in the Western part of the Province to about 12 inches in the East and the frost-free period varies from about 105 to about 125 days.

That is, as you move north the drying winds are not so severe from the point of view of evaporation and moisture efficiency, because the climate is better in the north.

Slightly higher rainfall, and better moisture efficiency with less evaporation because of lower temperatures and lower wind velocities, have resulted in a much more stable crop history in the park belt. The difference between these two areas is illustrated in some average yields of wheat shown in Table 1.

TABLE I
AVERAGE YIELDS OF WHEAT
CROP DISTRICTS 3 and 5, SASKATCHEWAN

Year	Brown Soil Zone Crop District 3 (Moose Jaw- Swift Current)	Black Soil Zone Crop District 5 (Yorkton-Watson)
	5.8 bus. per acre	20.3 bus. per acre
1919	25.8 " " "	21.9 " " "
1928	3.1 " " "	10.6 " " "
1931	.2 " " "	7.5 " " "
1937	28.1 " " "	24.6 " " "
1942	3.9 " " "	20.4 " " "
1949	24.7 " " "	28.4 " " "
1952	14.0 " " "	19.6 " " "

Long term average yield

Source: Statistics Division, Saskatchewan Department of Agriculture.

Map I illustrates long term average estimated yields by municipality and illustrates that average yields, on a municipal basis, vary from 10 bushels per acre to over 20 bushels per acre.

This map not reproduced, but it was distributed to all members of the committee.

In the Brown Soil zones, phosphate fertilizers used on summerfallow on the heavier, more drought resistant soils, have given yield increases of about 20%. They tend to show little result on stubble crops, on lighter soils and in drier years. Increases are more significant and more consistent from the use of fertilizers in the Park Belt and some good responses have been obtained in applying fertilizers to stubble crops in that area. The Grey wooded soils usually require use of green manure to increase the organic matter, or heavy fertilizing with nitrogen to give good crops. Legumes in this area often benefit in marked degree from applications of sulphur and phosphorous bearing fertilizers.

Land Use In Saskatchewan¹

There are at present 40½ million acres of improved farm land in Saskatchewan, constituting about 40% of the total improved land in Canada. The Province lies in the centre of, and constitutes the bulk of, the Canadian Prairies, one of the few large net food surplus producing areas that remain in the world. The 41% of Saskatchewan's population that works in agriculture, produces 60% of the wheat, 25% of oats, 40% of barley and 55% of the flax produced in Canada. Saskatchewan ranks third among the provinces in beef production, fourth in hogs, second in turkeys and fourth in value of dairy production.

¹A description of the Soil and Water and Land Use Programs administered by the Saskatchewan Department of Agriculture is being presented to the Committee as a separate brief.

The condition of occupied farm land as given in the 1956 census is shown below with 1931 included for purposes of comparison, and this gives you the picture of the condition of the occupied farm land.

	1931 Census	1956 Census
Annual Grain Crops	22,129,000	24,481,000
Summerfallow	9,942,000	14,193,000
Total devoted to grain	32,071,000	38,674,000
Improved pasture	712,000	1,128,000
Improved hayland	766,000	704,000
Total improved land	33,549,000	40,506,000
Woodland	3,508,000	2,379,000
Other unimproved	18,616,000	19,909,000
Total unimproved	22,124,000	22,288,000
Total area in farms	55,673,000	62,794,000

The dry climate and the need of moisture conservation has directed the cropping pattern in a large degree. The use of summerfallow has steadily increased until in recent years it occupies from 35 to 40 per cent of the cultivated acreage with attendant special problems in the form of wind and water erosion.

Senator HIGGINS: What is summerfallow? Will you remind me?

Hon. Mr. NOLLET: It is just keeping the land cultivated all summer long.

Senator HIGGINS: You do not crop it at all?

Hon. Mr. NOLLET: No. In the north it is worked more for weed control, and in the south they work the land for moisture conservation almost entirely. I ought to mention this, perhaps, that in the south the good soil, the heavy Regina clay, is the better soil that retains moisture well. If you have 40 inches of subsoil moisture you can expect a crop even though you get little, if any, rain during the summer months; that is for the good soil, or the heavy soil.

In recent years, due to the marketing situation, the acreage in wheat has been reduced by about 20%. Wheat may now occupy about 13-14 million acres, with 7-8 million in coarse grains and 1-2 million acres in flax and rapeseed.

In spite of natural handicaps of limited water supply and uncertain forage and pasture production, Saskatchewan farmers have made substantial gains in the production of livestock and livestock products. The potential in this direction is largely limited to meats because of the distance from large consuming centres.

The steady growth of livestock production is illustrated in Table II. Annual marketings of cattle and calves has doubled over the pre-war period and hog marketings are up about 50 per cent over pre-war. Cash income from sale of livestock and livestock products is more than five times of that received in the period 1926 to 1940.

TABLE II.

ANNUAL MARKETINGS OF CATTLE, CALVES AND HOGS AND GROSS CASH INCOME FROM LIVESTOCK SALES, FOR SELECTED PERIODS, SASKATCHEWAN

Period	Annual Marketings, head			Gross Cash Income from Sale of Livestock, Livestock Products
	Cattle	Calves	Hogs	
1926-30.....	174,066	29,832	299,791	32,353,000
1931-35.....	163,754	39,100	462,399	21,455,000
1936-40.....	256,174	97,523	463,603	32,688,000
1941-45.....	324,477	81,970	1,221,544	101,601,000
1946-50.....	420,644	99,085	372,948	127,731,000
1951-55.....	350,337	83,692	453,238	132,960,000
1956.....	439,901	104,974	576,804	134,441,000
1957.....	561,243	123,277	534,942	154,291,000
1958.....	574,111	161,017	704,201	185,000,000

SOURCE: Statistics Division, Saskatchewan Department of Agriculture.

SUMMARY

A very large and important agricultural industry has been developed in Saskatchewan during the last sixty years. With almost $\frac{3}{4}$ of the agricultural area in the semi-arid region, often referred to as the Palliser triangle, farmers are faced with the most hazardous natural environment in Canada. A painful adjustment of farm size has been continuing since the original settlement pattern proved quite unsuited to the productive ability and climatic hazards of the region.

Both the Provincial and Federal Governments made larger expenditures on agricultural relief during periodic dry periods. The first attempts to alleviate the problem took the form of a Crown leasing system for grazing lands, a comprehensive soil survey and a start at a community pasture program. Later, the P.F.R.A. and P.F.A.A. programs of rehabilitation and partial income insurance were implemented.

The use made of our farm lands reflects the honest attempt of farmers to adapt to the climatic hazards of the Great Plains. From 35-40 per cent of our cultivated acreage is summerfallowed each year to conserve the limited rainfall. Saskatchewan farmers have attempted to diversify their production. In spite of climatic hazards, they have made considerable progress, reflected in the post-war increase in livestock production.

Senator HIGGINS: What would you regard as a small farm?

Hon. Mr. NOLLET: In our province, a half section would be considered a small farm. We still have some quarter sections.

In this part of the submission, we have relied to a considerable extent on certain reports of Saskatchewan Royal Commission on Agriculture and Rural Life. Of particular relevance to the work of the Senate Committee are the following reports of this Commission:

Report No. 2—Mechanization and Farm Costs

Report No. 5—Land Tenure

Report No. 9—Crop Insurance

Report No. 3—Agricultural Credit

Report No. 8—Agricultural Markets & Prices

Report No. 13—Farm Income

Farm Size Trends

The trend in occupied acreages in Saskatchewan has been one of continuous increase except for the period 1941 to 1946. (Table III). The slight drop in this period was a direct result of the smaller, wartime labour force in agriculture. The trend of improved acreage has been consistently upwards since settlement.

By 1956, occupied land totalled 62.8 million acres while improved acreage reached 40.5 million. A moderate increase in these figures has probably occurred since 1956.

TABLE III.

TOTAL AREA OF OCCUPIED AND IMPROVED LAND, SASKATCHEWAN, 1901-1956.

Year	Occupied Land		Improved Land	
	Total Acres	Percentage Change from Previous Census Year	Total Acres	Percentage Change from Previous Census Year
		Per cent		Per cent
	Thousands		Thousands	
1901.....	3,833	—	1,123	—
1906.....	—	—	—	—
1911.....	28,099	633.0	11,872	957.2
1916.....	36,801	31.0	19,632	65.4
1921.....	44,023	19.6	25,037	27.5
1926.....	45,945	4.4	27,714	10.7
1931.....	55,673	21.2	33,549	21.1
1936.....	56,904	2.2	33,632	0.2
1941.....	59,961	5.4	35,577	5.8
1946.....	59,416	-0.9	35,590	—
1951.....	61,663	3.8	38,807	9.0
1956.....	62,794	1.8	40,506	4.4

SOURCE: Census of Canada.

Total farm numbers increased at a variable rate over the years until a peak of 142,391 farms was reached in 1936. (Table IV). Since 1936, a steady decline in farm numbers has occurred and, by 1956, the total was down to 103,391 farms. This represents a loss of 39,000 farms in 20 years or, in other words, one farm unit in every four has dissolved.

Senator McDONALD (*Kings*): Mr. Minister, how does that compare with the number at the turn of the century?

Hon. Mr. NOLLET: In 1901 the number of farms totalled 10,146. The number increased very rapidly and by 1906 the total reached 55,000. Since then we are back now to where we were in 1916 in terms of the number of farms.

TABLE IV.

CHANGE IN NUMBER OF FARMS, SASKATCHEWAN, 1901-1956

Year	Number of farms	Change in Number of Farms from Previous Census Year	
		Number	per cent
1901.....	13,445		
1906.....	55,971	42,526	316.3
1911.....	95,013	39,042	69.8
1916.....	104,006	8,993	9.5
1921.....	119,451	15,445	14.9
1926.....	117,781	-1,670	-1.4
1931.....	136,472	18,691	15.9
1936.....	142,391	-5,919	4.3
1941.....	138,713	-3,678	-2.6
1946.....	125,612	-13,101	-9.4
1951.....	112,018	-13,594	-10.8
1956.....	103,391	-8,627	-7.7

SOURCE: Census of Canada.

Average farm size has increased steadily since settlement days. (Table V.) The increase has been very rapid since 1936 with average farm size moving from 400 acres to 600 acres by 1956, an increase of 50 per cent in twenty years. This increase can be attributed to two main factors: (a) the mechanization of grain production and (b) the improved economic conditions outside agriculture. Mechanization made it possible for each farmer to handle larger acreages while buoyant conditions in the rest of the economy provided opportunities for the people displaced from farming.

TABLE V.

CHANGE IN OCCUPIED AND IMPROVED ACREAGE PER FARM, SASKATCHEWAN, 1901 to 1956

Year	Acres per Farm	
	Occupied Acres	Improved Acres
1901.....	285	84
1906.....	—	—
1911.....	296	125
1916.....	354	189
1921.....	369	210
1926.....	390	235
1931.....	408	246
1936.....	400	236
1941.....	432	257
1946.....	473	283
1951.....	551	346
1956.....	607	392

SOURCE: Census of Canada.

Senator McDONALD (*Kings*): I see by Table IV there were some years when there was an increase in the number of farms around 1931 and 1936. What was the reason for that?

Hon. Mr. NOLLET: We were at our peak in 1936. As you know, the war started in 1939 and quite a few people on submarginal lands left their farms. In my own district one after another left to get employment elsewhere. From then on the trend moved very rapidly towards larger farms. At the end of the war, with mechanism replacing horses, this whole movement to larger farms was accentuated.

Senator McDONALD (*Kings*): How many moved out of the dry areas?

Hon. Mr. NOLLET: I do not have any figures on that but great numbers moved from the south. Many came north. Some of them moved to irrigation projects in Alberta.

Senator McDONALD (*Kings*): Do you have any figures with respect to how many of the people who left farms were on small farms?

Hon. Mr. NOLLET: I would say most of them would have been on smaller farms.

Senator McDONALD (*Kings*): And they moved because they could not make a satisfactory living?

Hon. Mr. NOLLET: Yes, and because alternate employment was more attractive. Primarily their income level was so low they had to move.

Similar trends can be traced in the change in improved acreage per farm. In fact, the rate of increase here has been even more pronounced. Between 1936 and 1956, the average improved acreage per farm in Saskatchewan rose from 236 to 392 acres, an increase of over 60 per cent. Favourable climatic and price conditions in the post-war period prompted farmers to clear and break new lands in the north and to bring under cultivation some previously abandoned lands in the southern areas.

That is the immediate post-war period but when we get to 1950 and on, the trend went the other way and people were not breaking so much land.

While there has been a general increase in farm size, this has not meant a complete elimination of the small farm. (Chart I). Homestead policy established the quarter section as the basic unit. After the introduction of pre-emption rights and the sale of some railway and school lands, quarter section farms became a minority. The incidence of new settlement on small units maintained the number of quarter section farms at roughly one-third of the total until 1941.

I think that will answer your question, Senator McDonald?

Senator McDONALD (*Kings*): Yes.

Since that time, the quarter section farm has dropped to 15 per cent of the total. Half-section farms have been maintained at about one-third of the total and the 1956 census shows 30.8 per cent in this group.

While the average size of farms has increased throughout the province, the increase has been most pronounced in the prairie region. Table VI gives a classification of farms by size groups for census division and region in 1956. While only 8 per cent of the farms in the prairie region are of one quarter section size, nearly 24 per cent of park region farms fall in this size group. The range on a census division basis is even greater. Census division 3 in south-western Saskatchewan had only 6.0 per cent of its farms in the quarter-section class, while division 18 in northern Saskatchewan had 39 per cent in this class.

This is an indication that our small farms are principally in the north and not in the south.

The same picture holds for two quarter section farms. While 20 per cent of the farms in the prairie region are in this class, nearly 32 per cent of park region farms were of two quarter size.

The chart on the next page gives you an indication of this.

Senator BRADETTE: Why do you designate two quarter sections in some cases and half sections in other cases? What is the difference?

Hon. Mr. NOLLET: None. It is to make it less monotonous, I guess. It is monotonous enough.

Senator HIGGINS: I cannot understand that last paragraph:

The same picture holds for two quarter section farms. While 20 per cent of the farms in the prairie region are in this class, nearly 32 per cent of park region farms were of two quarter size.

Hon. Mr. NOLLET: It should be a half section.

TRENDS IN LIVESTOCK PRODUCTION

Saskatchewan has been traditionally a wheat producing province. The tremendous production of wheat and other grains over the years has obscured the fact that livestock is becoming a more and more important segment of the Saskatchewan farm income picture. (Chart II). In the period 1926-30, which was the most recent pre-war period not distorted by the extreme conditions of drought and depression, livestock and livestock products contributed some \$32 million or less than 13 per cent of the gross cash income of Saskatchewan farmers. In the five-year period 1951-1955, annual livestock and livestock product sales had increased to \$133 million and 22 per cent of gross cash income. In 1957, Saskatchewan farmers received \$154.3 millions, or nearly 30 per cent of their gross cash income, from livestock sources. This percentage will be even higher in 1958.

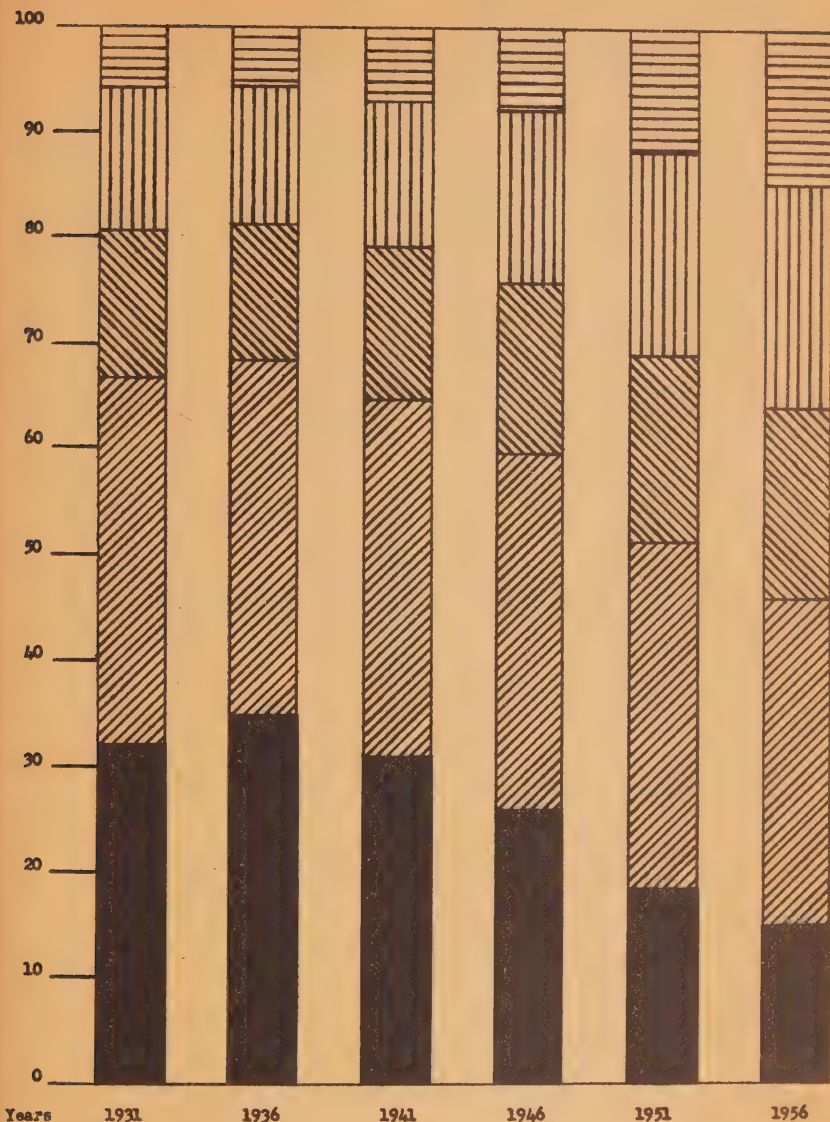
Since the 1951 census, Saskatchewan farmers have increased their cattle holdings substantially. Total cattle reported increased from 1,275,000 head in 1951 to 1,869,000 head in 1956. The total number of farms keeping cattle declined from 75,966 to 71,485. (Table VII).

This is pretty much the same trend as occurred in wheat, and it has also occurred in cattle—larger units.

This reduction is in about the same proportion as the general reduction in farm numbers for the same period.

CHART I FARM SIZE TRENDS IN SASKATCHEWAN, 1931 to 1956.

Per Cent



Legend

Under
201 acres
($\frac{1}{4}$)

201-479
acres
($\frac{1}{2}$)

480-639
acres
($\frac{2}{3}$)

640-959
acres
($1-1\frac{1}{2}$)

960 acres
and over
($1\frac{1}{2}$ & over)



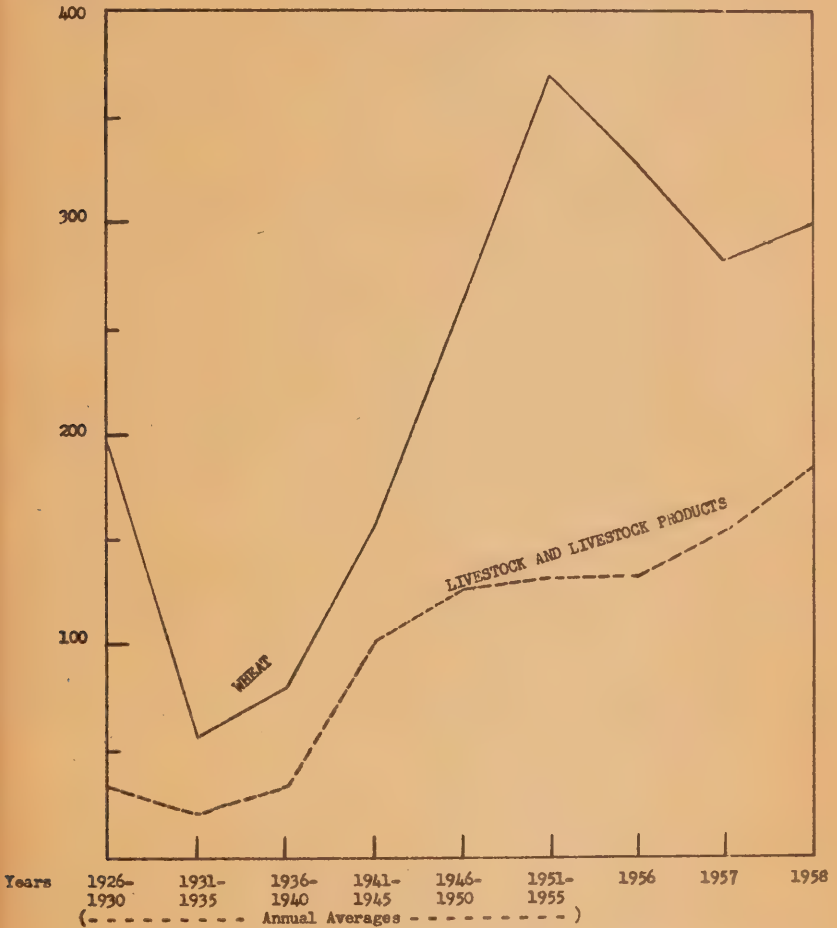
TABLE VI
FARM SIZE BY CENSUS DIVISIONS AND REGIONS, SASKATCHEWAN, 1956

Census Division	Number of Farms	0-239 Acres		240-399 acres		400-559 acres		560-759 acres		760-1119 acres		1120 acres and over	
		number	%	number	%	number	%	number	%	number	%	number	%
PRAIRIE													
1	5,131	466	9.1	969	18.9	1,080	21.0	1,090	21.2	933	18.2	593	11.6
2	5,118	335	6.5	953	18.6	916	18.0	1,038	20.3	1,058	20.6	818	16.0
3	5,633	337	6.0	1,249	22.2	993	17.6	1,018	18.1	1,113	19.7	923	16.4
4	3,307	733	7.0	496	15.0	390	11.8	439	13.3	616	18.6	1,133	34.3
6	7,160	703	9.8	1,917	26.8	1,603	22.4	1,421	19.8	1,038	14.5	478	6.7
7	5,519	471	8.5	971	17.6	970	17.6	1,089	19.7	1,072	19.4	946	17.2
8	5,850	423	7.2	1,073	18.4	930	15.9	1,085	18.5	1,156	19.8	1,183	20.2
11	5,228	551	10.5	992	19.0	1,049	20.1	1,010	19.3	974	18.6	652	12.5
12	4,852	458	9.4	934	19.3	865	17.8	922	19.0	993	20.5	680	14.0
13	5,067	352	7.0	926	18.3	924	18.2	1,019	20.1	1,030	20.3	816	16.1
Total Prairie.....	52,865	4,329	8.2	10,480	19.8	9,720	18.4	10,131	19.2	9,983	18.9	8,222	15.5
PARK													
5	6,945	922	13.3	2,188	31.5	1,662	23.9	1,177	17.0	723	10.4	273	3.9
9	7,883	2,325	29.5	2,779	35.3	1,620	20.5	712	9.0	370	4.7	77	1.0
10	6,293	1,240	19.7	2,009	31.9	1,390	22.1	911	14.5	547	8.7	196	3.1
14	8,513	2,521	29.6	2,962	34.8	1,518	17.8	836	9.8	501	5.9	175	2.1
15	10,049	2,836	28.2	3,223	32.1	1,924	19.1	1,156	11.5	672	6.7	238	2.4
16	6,148	1,120	18.2	1,733	28.2	1,266	20.6	932	15.2	759	12.3	338	5.5
17	4,297	796	18.5	1,020	23.8	843	19.6	652	15.2	607	14.1	379	8.8
18	398	155	39.0	102	25.6	53	13.3	46	11.5	29	7.3	13	3.3
Total Park.....	50,526	11,915	23.6	16,016	31.7	10,276	20.3	6,422	12.7	4,208	8.3	1,689	3.4
Total Province...	103,391	16,244		26,496		19,996		16,553		14,191		9,911	

Source: Census of Canada.

CHART II CASH INCOME FROM WHEAT COMPARED WITH LIVESTOCK AND LIVESTOCK PRODUCTS
IN FIVE YEAR PERIODS

Dollars
Million



Source: Dominion Bureau of Statistics and Saskatchewan Department of Agriculture.

Note: See Appendix B for a detailed table which is the basis of this sheet.

Now, one thing is notable about Table VII which follows. If you look under 1956 and get down to farms reporting from 13 to 32 head, and from 33 to 62, and over 62, combining those three we find that 65 per cent of the cattle produced were from those size farms.

TABLE VII. DISTRIBUTION OF FARMS BY SIZE OF CATTLE HERD, SASKATCHEWAN, 1951 and 1956

	1951	1956
Farms reporting more than 2 head	75,966	71,485
% of these farms reporting 3-12 head	49.4	35.5
% of these farms reporting 13-32 head	33.2	42.0
% of these farms reporting 33-62 head	6.5	16.1
% of these farms reporting over 62 head ..	1.9	6.3

Source: Census of Canada.

Cattle herds were larger in 1956. It is encouraging to note that nearly 65 per cent of farmers who had cattle had herds of more than 13 head in 1956. Only 40 per cent were in this class in 1951. This means that cattle is becoming a significant additional enterprise on a large number of farms in the province.

Turning to a regional breakdown of farms by size of cattle herd, some interesting variations are apparent. (Table VIII). More farmers in the park area have a cattle enterprise than is the case in the prairie area. However, herds are larger in the prairie area and no doubt reflecting the larger acreages of lands suitable for grazing. Any farm with a cattle herd of 33 head or more has a sizeable cattle enterprise. Nearly one-quarter of all farms in the prairie region have herds of this size but just over one-tenth of park area farms have such herds. The Northern areas are seriously deficient in good summer pasture.

Nearly two-thirds of Saskatchewan farmers did not have hog enterprises, according to the 1956 census. Only some 5 per cent of our farms had sizeable numbers of hogs. Some 5,000 of our 103,000 farms kept 8 or more pigs 6 months of age or over.

Looking at the hog picture on a regional basis, it is almost a complete reversal of the cattle situation. A greater proportion of park area farmers keep hogs and, on the average, they have larger hog enterprises than do prairie farmers. The main reason may be the low pasture requirements for a hog enterprise.

However, it is worth noting that a substantial expansion of hog production has occurred since 1956. The June survey of 1958 showed 890,000 hogs on Saskatchewan farms compared to 592,000 in 1956, an increase of 50 per cent.

TABLE VIII

PERCENTAGE OF FARMS REPORTING CATTLE CLASSIFIED BY SIZE OF HERD, CENSUS DIVISION AND REGION, SASKATCHEWAN, 1956

Per cent of all Farms Reporting Cattle Herds of:						
Prairie Region	Total Farms	None to 2 Head	3-12 Head	13-32 Head	33-62 Head	63 or More Head
1.....	5,131	23.9	15.5	30.0	21.7	8.9
2.....	5,118	33.5	19.2	27.0	14.0	6.4
3.....	5,633	38.3	20.3	21.4	12.1	7.8
4.....	3,307	36.5	13.4	17.6	13.0	19.4
6.....	7,160	33.6	18.4	32.6	12.3	3.1
7.....	5,519	33.3	19.9	24.7	14.9	7.2
8.....	5,850	51.0	19.0	15.9	8.0	6.1
11.....	5,228	35.3	22.7	29.2	10.3	2.4
12.....	4,852	40.0	19.7	23.7	12.8	3.8
13.....	5,067	34.3	21.4	26.1	12.3	5.9
Total Prairie.....	52,865	36.1	19.1	25.2	13.0	6.6

Per cent of all Farms Reporting Cattle Herds of:

Prairie Region	Total Farms	None to 2 Head	3-12 Head	13-32 Head	33-62 Head	63 or More Head
5.....	6,945	17.4	16.3	43.2	19.2	3.8
9.....	7,883	20.4	36.9	35.6	6.2	.9
10.....	6,293	22.2	28.9	38.3	9.3	1.3
14.....	8,513	37.4	38.2	21.4	2.6	.4
15.....	10,049	27.9	36.3	29.6	5.1	.1
16.....	6,148	24.1	24.1	36.9	12.3	2.6
17.....	4,297	23.7	21.5	30.5	16.4	7.9
18.....	398	35.4	29.4	24.4	8.0	2.8
Total Park.....	50,526	25.4	30.2	33.1	9.2	2.1
Total Province.....	103,391	30.9	24.6	29.0	11.1	4.4

SOURCE: Census of Canada.

FARM CAPITAL INVESTMENT

Capital has been a critical resource in agriculture since settlement. Mechanization of farms and technological change since 1940 has emphasized the relative importance of capital equipment in the province.

In 1941, total farm capital investment was 896 million dollars, which had increased to 1,230 million in 1946, 1,991 million in 1951 and 2,131 million in 1956 (Table IX). Capital requirements more than doubled in 15 years. Average capital investment per farm stood at \$20,000 in 1956.

Senator HIGGINS: You mean the cost of mechanization, the cost of buildings and all?

Hon. Mr. NOLLET: Buildings and land. From the following Table IX you can see a tremendous increase particularly in the machinery investment.

TABLE IX
VALUE OF FARM CAPITAL, SASKATCHEWAN,
1951 and 1956

	1951	1956
Livestock	\$ 286,277,000	\$ 227,619,000
Machinery	525,645,000	551,719,000
Buildings	301,286,000	344,370,000
Total	\$ 1,113,208,000	\$ 1,123,708,000
Land	\$ 881,619,000	\$ 1,007,690,000
TOTAL FARM CAPITAL	\$ 1,994,827,000	\$ 2,131,398,000

(Source: Census of Canada and Saskatchewan Department of Agriculture.)

Farm machinery investment has increased rapidly since 1940. In 1941 machinery investment was 143 million dollars or 16 per cent of the total capital investment. In 1956, machinery investment was 551 million dollars or 26 per cent of total capital investment. The largest increase occurred between 1946 and 1951 when machinery investment more than doubled. Farm machinery investment per farm equalled \$5,356 in 1956.

Senator STAMBAUGH: Would you say that that increase is mostly for more machinery or mostly in the price of machinery?

Hon. Mr. NOLLET: Well, price and more, but probably principally price.

Senator STAMBAUGH: The cost and the price are doubled, then?

Hon. Mr. NOLLET: That is right.

Senator BUCHANAN: It is a more expensive type of machinery?

Hon. Mr. NOLLET: That is right; and we made this very heavy investment. When the war was over our machinery inventory was in bad shape. We could not get machinery during the war, and there was a terrific buying of machinery immediately after the war.

Senator HIGGINS: You show land at \$881,619,000. That means land with practically nothing, that has been developed and brought up; is that it?

Hon. Mr. NOLLET: Yes, that is it; and then current land values have gone up some, too.

Senator STAMBAUGH: Would you say current land values have gone up in the past ten years?

Hon. Mr. NOLLET: Not a great deal, not as one would expect. I think current land values were probably higher after World War I than they are now, generally speaking.

Senator STAMBAUGH: I think that is right.

Hon. Mr. NOLLET: I think people have a keener appreciation of the actual productive value of land. In those days away back there was a great inclination to speculation, which is quite removed as far as farming in Saskatchewan is concerned. No one is going to pay too much for land now.

Senator STAMBAUGH: It doesn't look like a very good speculation.

Hon. Mr. NOLLET: Well, I don't know. A fellow told me once, "You don't need to insure it, it won't burn." It is a good investment for that reason.

Farmers emerged from the 1930's with little capital. They were immediately faced with the prospect of heavy outlays for farm machinery and farm unit expansion. The fact that credit was more readily available for machinery purchase meant that many small operators tended to over-mechanize in relation to their acreage.

Farm Income

Acreage, by itself, is not a satisfactory measure of economic size of farms. Various parts of the province feature different soils and different climatic conditions. While soils such as the Sceptre and Regina Heavy Clay soil associations in the prairie area are exceptions, long-time average yields for wheat vary from less than 10 to 15 bushels per acre in the prairie area to well over 20 bushels per acre in the North-eastern parts of the province (See map I). Year to year variations in grain crop yields are much more extreme in the prairie region.

The total income producing capacity of a farm is a practical criteria for judging the number of non-economic farms in the province. Unfortunately there is a serious lack of data regarding regional differences in farm income and practically no information at all about income differences between classes of farms within regions. The Saskatchewan Royal Commission on Agriculture and Rural Life made some estimates of the numbers of farm units which could be considered non-economic in the sense that they did not possess enough land and capital resources to yield incomes comparable to the urban wage earner.¹ Their estimates were made on the basis of the yield, price and cost relationship that existed in 1950. Relating net income to investment, the Commission estimated that from one-third to one-half of Saskatchewan farms were under-capitalized and, therefore, would fall into this non-economic classification.

In order to check on the present day situation, the Department has made some calculations on the net income potential of the present average Saskatchewan farm using 1958 price, cost and average yield conditions. An annual net income of \$2,000 per farm is considered to be the minimum standard to provide

a decent standard of living for the farm operator and his family. This is roughly comparable to a \$3,000 annual wage (after taxes) for the urban worker. The difference of \$1,000 is assumed to be made up by the value of income in kind consumed on the farm and the value of rent for the farm home.

Considering the foregoing assumptions, estimates and prevailing conditions, the average Saskatchewan farm today would yield a net income very close to this \$2,000 standard. The budget of a hypothetical farm is outlined below.

INVENTORY

AVERAGE SASK. FARM (1956 CENSUS)

Average size of farm—607

Average improved acreage—392 acres.

Grain: Based on wheat

392 improved acres = $\frac{1}{3}$ in fallow = 261 acres in crop

long-time average wheat yield = 15 bu. acre.

Annual production = $261 \times 15 = 3915$ bu.

Gross income from grain = $\$1.25 \times 3915 = \$4,893.75$

Net income from grain = $\frac{1}{3}$ of $\$4,893.75 = \$1,631.25$

(net income = labour + investment income)

¹ (See Appendix III, pp. 374-383, Report No. 13, Farm Income, Royal Commission on Agriculture and Rural Life, Queen's Printer, Regina, 1957).

Livestock:

Cattle:

Grazing land = 215 acres unimproved less $\frac{1}{3}$ waste land
= 143 acres.

One cow requires 14 acres for 6 months

143 acres carried 10 cows

Production = 9 calves at 400 lbs. = 3600 lbs.

Gross income = 3600 lbs. \times 15c. = \$540

Costs = $\$30 \times 10 = \300

Net income on cattle = $\$540 - \$300 = \$240.00$

Hogs:

2 sows with 2 litters of 6 pigs each

production = 24 pigs for sale

Net income = $\$5 \times 24 = \120.00

Total annual net income = Grain.....	\$ 1,631.25
Cattle.....	240.00
Hogs.....	120.00
	<hr/>
	\$ 1,991.25

On this basis, the average size of farm in acres just about meets the acceptable annual net income level required. In very general terms, it may be concluded that under average conditions and practices, farms under one section (640 acres) in size are unable to produce a satisfactory net income. It may be emphasized that this is a Provincial average and on farms with below average yields more acreage is required and on farms of above average yields less acreage is required. This suggests in 1956 that around 50 per cent of Saskatchewan farms were too small to net an acceptable annual income.

Based on Dominion Bureau of Statistics figures over the past 15 years, the average annual net income is close to \$2,900. When \$1,000 is deducted, for income in kind, from the \$2,875 net income DBS figure the average annual farm net income was \$1,875 for the years 1943 to 1957.

SUMMARY

An examination of farm size trends has revealed that Saskatchewan farms have increased in size substantially over the years and particularly since 1936. This has been a direct response to the need for more satisfactory incomes and the labour-saving techniques offered by mechanization. The increase in farm

size has not been uniform in all regions. The prairie area has featured the sharpest increase. However, large numbers of small farms still exist in the province particularly in the park region.

Livestock and livestock product sales now make up a considerable portion of farm cash income in Saskatchewan. Cattle herds are increasing in size. Generally speaking, a higher percentage of prairie region farmers have large cattle herds than do their counterparts in the park region. In the case of hogs, relatively few farmers have sizeable hog enterprises.

Farm capital investment has increased substantially over the years. By 1956, the average investment per farm in land, machinery, buildings and livestock was \$20,000. Land makes up about one-half of this amount, machinery about 25 per cent, buildings 15 per cent and livestock just over 10 per cent of the total.

Farm income potential is the critical measure when determining the extent of the small farm problem. Although adequate data is not available to enable precise measurement, it appears that from one-third to one-half of our farms in 1951 did not possess sufficient resources to produce a satisfactory income for the farmer and his family. By 1958, the situation had worsened. The continued increase in farm costs coupled with lower prices for grains has more than offset the farm size increases which have occurred since 1950. As a result we have a very undesirable situation. Farms are expanding in size resulting in fewer farms and make it more difficult to provide rural services. At the same time, a lack of corrective programs and the "cost-price squeeze" have resulted in even more farms falling into the non-economic category.

III CAUSES OF THE SMALL FARM PROBLEM

Non-economic farm units in this Province have stemmed from a number of basic causes. Low average yields, the long freight hauls, the export market, original settlement pattern, lack of adequate capital resources, immobility of labour resources in agriculture and the restricted production alternatives are among the more important sources of the problem.

Low Yields: to a person from humid areas, the size of Saskatchewan farms must seem very large indeed. Such first impressions are very misleading. With average yields as low as eight bushels per acre in some areas and a provincial average of 15.5 bushels, it takes a large number of acres to produce a satisfactory income. Even these yields are obtained on only $\frac{1}{2}$ to $\frac{2}{3}$ of the cultivated acreage. Many of our best grain producers summerfallow half their cultivated acreage each year. In only a limited area of the province do farmers summerfallow less than once in three years.

On a typical one-section farm in the prairie area, with 540 acres cultivated, there will not be more than 360 acres in crop and on many farms only 270 acres would be cropped. Yields of 17 bushels on summerfallow and 10 on stubble crop would give total production of 4,080 to 4,320 bushels per year of wheat. A farm price of \$1.25 per bushel means a gross income of \$5,700 to \$6,000 per year. It is obvious that this is not a large business.

Costs per acre of summerfallow crop on Dominion Experimental Farm Substations are variously calculated today as from \$17.00 per acre to \$25.00 per acre. Studies made by Mr. J. W. Clarke, Agricultural Supervisor of the Kindersley School Unit, have indicated average costs in that area at around the \$20 per crop acre level. With this "rule of thumb" as a guide and average farm prices of wheat in the \$1.25 to \$1.30 bushel range, the pressure on farm size is apparent. With approximately \$4-\$5 per cropped acre left for operator's wage from a 20 bushel per acre crop, at least 400 crop acres are necessary to yield a wage of \$2,000. This involves a cultivated acreage of about 600 to 800 acres depending on the soil and area.

Long Freight Hauls: The Saskatchewan farmer is a long distance from both the market for his products and the source of the manufactured goods he uses on the farm and in the home. On the one hand, the long freight haul reduces his returns from the sale of his products while, on the other hand, he must pay high freight costs on the goods he purchases. In 1957 the cost of shipping wheat from an 18¢ freight zone in Saskatchewan to Liverpool was about 56¢ per bushel not including local and terminal elevator charges. In other words, the freight hauls add substantially to farm operating and living costs as well as to the cost and delays involved in placing our produce on the market.

The Export Market: The export market, with its dependence on national policies in importing countries and considerable subsidization of exports in competing, exporting countries, has left the Canadian grain producer in a highly vulnerable position. Traditionally the export price for wheat has been a highly fluctuating price. While the Canadian Wheat Board has operated to ease the effect of surplus conditions and fluctuating market conditions, it is not able to affect the price levels as is possible with marketing boards within the domestic market.

Here, as far as we are concerned, we have in mind a milk control board—the rest are all variables. I don't know how it is in the east; you may get some stability with provincial marketing boards where you have a ready consumer's market, but with us the only product is milk.

The unfavourable position of wheat in world trade since the early fifties and the effect of inflationary pressures in our own country are outlined in Table VIII. The net effect of rising costs and falling prices is to reduce the purchasing power of wheat to its lowest point in history except for the disastrous years of 1931 and 1932.

TABLE VIII
COMPARISON OF FARM COSTS AND WHEAT PRICES,
1949-50 TO 1956-57.

Year	Index of Farm Costs for Western Canada (1935-39 = 1.00)	Average Farm Price of Wheat in Saskatchewan
1949-50.....	199.2	\$1.61
1950-51.....	207.0	1.49
1951-52.....	225.5	1.52
1952-53.....	238.6	1.59
1953-54.....	237.3	1.33
1954-55.....	235.7	1.21
1955-56.....	234.7	1.38
1956-57.....	242.2	1.24
1957-58.....	258.4 (Estimated)	1.28 (Estimated)

SOURCE: Dominion Bureau of Statistics and Saskatchewan Department of Agriculture.

Original Settlement Policy:

Reference has already been made to the fact that original settlement imposed a pattern of too small farms. This was borne out by the studies of Dr. W. Allen and E. C. Hope at the University of Saskatchewan and published in 1935 under the title "Studies of Probable Net Farm Revenues for Principal Soil Types of Saskatchewan". Using 1910-14 costs and 77 cents as the farm price for wheat, they showed that net farm income on half section farms would vary from \$470 to \$1,000 depending on the soil. On one section farms, the range in net farm income was \$985 to \$2,000.

Adjustments to meet the problems of too small farms commenced immediately after settlement. They proceeded very rapidly in the 1941-51 period. The effect of these adjustments, however, has been very largely nullified by rising costs and falling prices since the early fifties.

The original settlement policy was faulty in another regard. Farms were established where texture, topography, drainage, low fertility or stones or combinations of these, rendered the land unsuitable for crop production. The same criticism can be made of some settlement in Northern Saskatchewan during the thirties.

Activities of the Land Utilization Board since 1935 resulted in acquiring about one million acres of this type of land mostly through tax enforcement proceedings. Since that time these settlements on unsuitable land have been acquired by purchase with lands involved, returned to forestry, P.F.R.A. or provincial community pastures.

I might mention at this point that there are about 2½ million acres in community pasture, of problem land acquired by the Land Utilization Board, by purchase and by exchange. We do a great business in land in Saskatchewan: we swap land here and there. If a farmer wants a piece of land, we will take that if he will agree to buy a piece of land in a pasture area—we make a deal.

Senator STAMBAUGH: You are speaking of community pastures?

Hon. Mr. NOLLET: Community pastures.

Senator STAMBAUGH: Are they under direct provincial control, or by counties and municipalities?

Hon. Mr. NOLLET: There are four types of pasture: P.F.R.A., which is the largest, numbering about 1,600,000 acres; and there our responsibility under the Land Utilization Act is to acquire the land to go into pastures; and there is the co-operative pasture, which is moving along very rapidly, there now being about 95 co-operative pastures.

Senator STAMBAUGH: Are they privately owned?

Hon. Mr. NOLLET: No, they are pretty well all Crown land, although a co-op pasture can be privately owned. We say to a group of farmers, if you will pool your pasture land and form a co-operative, we will pay 50 per cent of the development cost of re-grassing the land for grazing or for fodder purposes; but we do insist on it being a legally constituted group.

Senator STAMBAUGH: That percentage is not very large.

Hon. Mr. NOLLET: When you look at the overall picture?

Senator STAMBAUGH: Yes.

Hon. Mr. NOLLET: You have to read that in conjunction with other Crown land. We administer around 9 million acres of Crown land in the province; there are very nearly 2½ million acres of pasture of these different types, P.F.R.A., provincial, co-operative and some municipal pastures. Most of the balance, some 5½ million acres, is leased on a private lease basis.

Senator STAMBAUGH: That is Crown land.

Hon. Mr. NOLLET: That is Crown land. There is very little suitable Crown land left for cultivation.

In terms of lessees and farmers affected, there are about 14,000 farmers who have a Crown grazing lease, and there are about 5,700 farmers who have a cultivation lease. In other instances, there are combination cultivation-grazing leases. When you add them altogether, and add the number of people who are served by these pastures, there are about 25,000 farmers who are receiving assistance.

Senator BUCHANAN: Are these on a long-term lease basis?

Hon. Mr. NOLLET: Yes, long-term leases.

Senator McDONALD (*Kings*): Have you anything to show the cost of labour on farms today compared with that of the days before the machine age?

Hon. Mr. NOLLET: No, we don't have that.

Senator McDONALD (*Kings*): With respect to this man who gets around \$2,000 net income, have you taken out labour costs?

Hon. Mr. NOLLET: That is for his labour.

Senator McDONALD (*Kings*): Would you have any other labour costs for which he would have to pay money out?

Hon. Mr. NOLLET: No. This is called a family unit. A good deal is said today—and it is borne out by our farm employment studies that we carried on—that if you get a good sizeable unit an operator can work it himself and probably do better than if he had two or three sections and employed help. In other words, there seems to be a breaking point there, where you have a combination of high priced machinery, and comparatively high priced help, because the farmer has to compete with industry for help, you get to a point where it is not too remunerative.

Senator McDONALD (*Kings*): You have to have enough land to keep that expensive machine operating, in order to justify the heavy expenditure in buying them.

Hon. Mr. NOLLET: That is true, and this will vary from soil to soil. In the Regina Plains area where the land is free from stone you can employ labour and machines to good effect. I think the large farmer there employing help would do better than he would in some other area where it is a little more risky and not so easy to cultivate.

Senator HORNER: Is it true that some of the small farmers may supplement their income by working for a large farmer?

Hon. Mr. NOLLET: Yes, that is right, many of them would not survive unless they had some alternative.

Senator HORNER: But your estimate gives the cost of summerfallow at \$20 and \$25 an acre. Well, that is away out of line. It could be done for \$7 an acre.

Hon. Mr. NOLLET: That would be including all costs, your depreciation on machinery, and all costs.

Senator STAMBAUGH: And interest on your investment.

Hon. Mr. NOLLET: Scattered farms and sub-economic ranch units have been acquired by purchase or land exchange since, and the lands added to adjacent farms for grazing or for community pastures. P.F.R.A. have moved a number of farmers from these farms to the Vauxhall irrigation project.

There is no basis available for estimating the number of farms that still exist on unsuitable soils but there is no question that a considerable number still do. They are located principally in the north-western and southern parts of the province.

Lack of Adequate Capital Resources

The limited opportunities for accumulation of capital on farms of the half section range with less than 200 acres in crop are evident. Following the experience of the thirties, private long-term capital has generally been unavailable in Saskatchewan. The Canadian Farm Loan Board, while serving a useful purpose in loaning from \$3½ to \$6 millions annually in the province, has not been able to help the farmer with limited capital resources to expand his farm. On the other hand, the V.L.A. program, featuring small direct grants, modest amounts of long-term credit with a crop share repayment option, along with careful selection and supervision of borrowers, has proven very successful.

Immobility of Labour Resources in Agriculture

The decision to move from a farm to seek employment in an urban centre is an extremely difficult decision for any farm family to make. The uncertainties and costs are usually too high for an already impoverished family to accept. For this reason, not many families will move from non-economic farms until retirement except where special circumstances can offer satisfactory employment and accommodation.

In the past, the main outward movement from agriculture has been the sons and daughters of farmers. This is not an entirely satisfactory situation particularly since it is the better educated young people who can find urban employment most easily. The continuation of such an outflow of the people who have the ability to become first-class farm operators could have an adverse effect on an industry which urgently needs such skills.

Lack of Production Alternatives

The opportunities that are available in more densely populated areas for diversification and production of high value special crops are rarely available in Saskatchewan.

Milk production and egg production are satisfactory specializations for a limited number of producers. Markets for fresh vegetables and such fruits as can satisfactorily be grown are extremely limited, partly because of the uncertainty of supply.

I might say that we have no large urban centres.

For a number of years, alfalfa seed offered a good high value cash crop on small acreages on new farms in the north. However, declining yields and prices since 1950 have resulted in a great decrease in production. The market for grass seeds is limited and highly variable.

The production of meats, beef, pork, lamb and turkeys offer the best alternatives to the grain farmer. Although pork prices have been subject to wide fluctuations, production has generally tended upwards.

The favourable relationship of beef prices has resulted in substantial growth of that industry. However, even yet, per-acre returns on good arable land would hardly favour beef production in place of wheat. Where pasturage and water can be made available, the small grain producer, during the last ten years, has sought to increase his herd. Many have increased to the point where in the last two dry years they are facing serious problems in hay, pasture and water supplies.

Other Causes

In examining the general agricultural picture, it is easy to fall into the position of considering, for example, that all farms with less than 400 arable acres are uneconomic. In fact, this is not so.

There are many farms in the province, especially in the better areas and on better soils where careful management and husbandry produce considerably above average yields; where home grown produce furnishes much of the living and where even small supplementary enterprises such as cream shipping, has resulted in an income and standard of living that are quite satisfactory to the occupant and his family.

Senator BUCHANAN: May I ask a question right now? Is it possible to break down the cost of this summerfallowing? Have you any break-down costs? What I want to get clear in my own mind is whether it is possible that the labour charge for the summerfallowing is, in effect, part of his income in addition to what you show. I mean, you show \$20 an acre, or whatever it is, and if he does the work himself does that increase his income over the amount you show?

Hon. Mr. NOLLET: What we have shown is just where the farmer does his own work. Those are the figures I have quoted.

The CHAIRMAN: You are allowing nothing for labour?

Senator BUCHANAN: You have not allowed anything for labour in the summerfallowing that he does?

Hon. Mr. NOLLET: I will ask Mr. Horner to deal with that, and allow me to have a rest.

Mr. HORNER: I have some information here gathered by Mr. J. W. Clark in the Kindersley area. He is an economist, and has been working with farm management clubs for sometime, and they have kept careful records for him. This is in the western part of the province with fairly good soils and fairly large farms, and he shows his cost of production—and I would emphasize that this includes interest on capital, depreciation on machinery, taxes and all costs with no operator wage. The average for all farms is \$19 per acre—this is per cropped acre. The average for small farms is \$20 per acre; for medium small farms it is \$22 per acre, and this report gives the average for all farms as \$18 per acre. When he included \$3,000 for operator wage his costs were \$25 average for all farms; \$30 for small farms; \$30 for medium small farms, and it drops down then, of course, to \$23 for large farms.

Senator BUCHANAN: In the work he has done he has been including the labour. It would be quite easy—

Mr. HORNER: When we quote the twenty-dollar figure, senator, that is without labour. It is from \$23 to \$30 an acre with labour.

Senator BUCHANAN: Thank you very much.

Senator HORNER: I think I can have summerfallowing done for \$5 an acre.

Mr. HORNER: That is correct, senator. I think a lot of the people who do custom work do not charge a realistic depreciation price. If they can see a cash income from the use of their machinery they are willing to make some sacrifices.

Hon. Mr. NOLLET: In other words, it pays to have it done. It is cheaper than buying machinery.

Senator CAMERON: Just on that point, do you find many private entrepreneurs setting up organizations to service farms in Saskatchewan?

Hon. Mr. NOLLET: No. They have not developed that on a custom basis. As Mr. Horner has stated, you will usually find that a farmer will work for his neighbour because he has the machinery to do it and he can make a little more cash that way. But that sort of thing may develop.

Senator HORNER: Sometimes a farmer has bought machinery that is really a little too large for his own operations and he is anxious to put it to work for others after he has finished work on his own farm.

Hon. Mr. NOLLET: Yes, they are the ones who are doing it, those who are over-mechanized. You will find them out working for their neighbours or perhaps I should say out working for the manufacturing companies.

Just as habits of thrift, self denial and good management enable some families in cities to maintain higher standards on lower income levels than many of their neighbours, so some families on farms can make a success of an enterprise where others would fail.

It would be less than fair if we did not indicate that management ability plays a part in the level of income from a farm. The emphasis on extension services in our Department is a reflection of our belief that farmers should be kept advised of the most modern techniques and farm practices. Recently we have instituted as an integral part of our extension work, a farm management service. It is hoped that this service will serve to develop a higher standard of farm management in the province.

Summary

The non-economic farm problem in Saskatchewan stems from a number of causes. The low productivity of our cultivated lands due mainly to inadequate rainfall means that farmers need large acreages. The long freight haul adds to their costs while reducing the value of their products. The fact that our wheat is sold on the export market—a market which features restrictive tariffs in importing countries and subsidized competition from other exporting countries—means that the price received is both low and variable.

The original settlement policy left us with a large number of small farms, some of which were on unsuitable lands. Considerable size adjustments have occurred but the recent cost-price squeeze has wiped out the value of these adjustments and left us with as many or more uneconomic farms than we had ten years ago.

Traditional credit services have proven inadequate to meet the needs of farmers with limited resources. Our farmers make the partially justifiable complaint that the only farmers who can get credit are the one that do not need it. The V.L.A. experience indicates that a properly devised credit program, involving some subsidy, can be a successful means of assisting the success establishment of family farms of economic size.

The relative immobility of the human resources contribute to the persistence of the non-economic farm unit in our agriculture. Most of the labour resources leaving agriculture has been in the form of young people.

Possibilities of diversification are limited particularly in high value specialty crops partly because of climatic conditions but largely to the long distance from the major markets.

While the management ability of our farmers is high enough to compete successfully with grain producers in any part of the world under free trade conditions, improvements can still be made.

IV SUGGESTIONS FOR IMPROVEMENT

The Saskatchewan Royal Commission on Agriculture and Rural Life stated "The family farm provides a means of achieving balance between necessary economic re-organization of agricultural resources and the social objective of maintaining a maximum number of opportunities in agriculture." (1)

They suggested the following criteria for a family farm:

- (a) The farmer and members of his family supply most of the labour needed.
- (b) The available farm resources are sufficient to provide the family with at least an adequate minimum standard of living.
- (c) The farm operator makes all or most of the managerial decisions.

It has been pointed out previously that from one-third to one-half of the farm units in the province fall short of providing an adequate income under recent price relationships.

It will be suggested later that use of income levels as a main measure of a farm unit has serious weaknesses because of fluctuating price levels and that use of productive work units should be explored as being a more tangible guide. If a family farm is accepted as a satisfactory objective of agricultural policy it is reasonable to expect that governments will exercise some measures towards its maintenance. Alternatively, it is hardly reasonable to expect society to undertake measures to provide an adequate income on farms where the available resources do not provide full and efficient employment, or where the soil is such that it cannot support a farm enterprise, except to reduce hardship during periods of rapid adjustment.

(1) Report No. 13, Farm Income p. 303. R.C. on Agriculture and Rural Life, Queen's Printer, Regina, 1957.

The present unfavourable relation between general price levels and grain prices, results in farms which have the capital in the form of land and equipment to provide the most efficient production falling into the sub-economic group. With continuing inflation, the prospects are that present adverse trends will continue. Even a slight further deterioration in these relations would result in very few farms providing adequate labour income.

Our agricultural industry is now mechanized, with the result that costs have become established and fixed. The costs of expanded rural municipal services, of hospitals, of power, of better educational facilities, as well as operating costs of machinery and equipment must all be provided from the farm budget. Even the larger scale farmers to-day are fighting for sufficient income and price stability to meet these costs. The eventual requirement will be a comprehensive marketing and farm income plan that will stabilize farm income in spite of market fluctuations and that will enable the farmer on the socially desirable family farm to meet all his obligations and living expenses. This type of program would presumably reduce the number of farms in the sub-economic class to those with inadequate resources.

However this brief is directed, not towards the general farm problem but particularly towards the small or low income farm. The following are our suggestions for programs to alleviate and reduce the low income farm problem.

1. A Comprehensive Credit Program

Low income farms require new capital resources and existing credit sources are not filling the need. Properly applied credit could do much to help qualified farmers build up an adequate sized farm. To offer real assistance to the low income group a credit program must meet four conditions:

- (a) Careful selection.
- (b) Sufficient credit must be advanced to lift the farm from its status as a low income farm to an adequate sized unit. Otherwise it will not be possible to repay it.
- (c) Competent supervisory services must be provided, that can offer the managerial advice and help that is often required.
- (d) The repayment program should be related to the productive capacity of the expanded farm.

It is suggested that in view of the level of supervision and assistance required, that such a credit program be subsidized at least to the extent of supervision costs.

2. Resources Development

In the Northern areas of Saskatchewan where the small farm problem is most acute, grazing resources are limited. In this area non-arable land is tree covered and of very low productivity for grazing. Most of the area lies North of the P.F.R.A. boundary, and there has been relatively little community pasture development.

The addition of a reasonably sized beef cattle enterprise could be a major step in enlarging the business and providing a better pattern of land use in many of the small farms in Northern Saskatchewan.

The program that is being undertaken by the Province to provide some grazing to permit expansion of beef cattle enterprises on small farms is described in the supplementary submission on Land use with the recommendation that such programs be included in a National Conservation Policy Assistance in water development would also be required.

Comments regarding water conservation and development are also contained in the section on land use.

3. *Agricultural Extension & Farm Management*

It is considered that on many low income farms there are real opportunities for improvement through better land use and better management, with more intensive production resulting in higher yields. This is closely associated with a credit program which could assist sub-economic units to expand their business by development of efficient secondary livestock enterprises or by acquiring more land. The present extension program in Saskatchewan is covered in detail in the supplementary submission on Land Use.

4. *Programs to Encourage Movement from Non-economic Farms*

The difficulty and reluctance of farm families to move out of agriculture has been mentioned. However, maintenance of a general climate that will encourage movement is important. Some requirements are:

- (a) Expanded employment opportunities outside agriculture. These are more likely to be effective if they are reasonably close to the farming area concerned. Further industrial development in the Prairie Provinces would provide alternative employment for those wishing to leave agriculture.
- (b) Vocational training and education programs that will help to equip those who must leave agriculture in competing for alternative employment.
- (c) Encouragement of local industry that will offer part time or full employment to those on farms.

There is also a plan for direct programs in purchasing farms that are on unsuitable soils. (This is also referred to in the section on land use). It is often necessary to pay more than the actual value of such farms in order that the families concerned will have some means of re-establishment. The Saskatchewan Government has undertaken on a modest scale to do some of this work and has purchased farms and paid grants to families to cover moving expenses. This is necessarily a slow program involving detailed work but could be expanded if assistance were available through a National Conservation Program.

The CHAIRMAN: I see it is 12 o'clock noon. Would it be the wish to adjourn at the present time for luncheon, or shall we go right through?

Senator BRADETTE: It would only take about ten minutes to finish the reading of the brief, and then a few minutes to ask questions, if Mr. Nollet is not too tired to continue.

Hon. Mr. NOLLET: Perhaps I could summarize the brief. I think we could skip over it pretty quickly.

The CHAIRMAN: Take it as read for the time being as far as the printing of it is concerned, but you may summarize it now.

V. PROBLEM AREAS FOR INVESTIGATION

The Saskatchewan Department of Agriculture would like to suggest, for the consideration of your committee, three main areas of investigation which we feel would provide information useful in policy formulation. These are (a) research into alternative measures of farm size, (b) ways and means of securing more accurate regional and intra-regional information on farm income and (c) a study of the implications of vertical integration and contract farming for Canadian agriculture. These three possible areas for further investigation are outlined in more detail in this section of our submission.

Use of Productive Man Work Units as a Guide to Determination of Family Farm Characteristics.

In the search for measures of criteria by which the "family farm" can be described, it appears that the Productive Man Work Unit measure has been overlooked. There is a widespread tendency to consider income criteria only. In the complex economy of today, especially with uncertain and unstable foreign markets, this criterion is a "will of the wisp" measure which is difficult to grasp. During most of the forties a good half section farm with a small cattle enterprise could provide a good living for a farm family and could retire some indebtedness. During the latter part of the fifties at least three times as much land is required.

If the price of wheat should decline a further 20 or 25 cents per bushel, only very large farms on very good land could then be termed "economic". Similar comments can be applied to pork production and the various poultry products. The prices of these have been prevented from falling below the cost of production of even the most efficient producers only by the government support programs. Milk prices have been maintained by Provincial Boards. Beef production has been the slowest to overtake consumption increases but there is no reason to think that this will not happen in due course.

To measure the "size" of a farm business several approaches can be used:

- Total investment
- Cultivated acres
- Total acres
- Volume of production (gross income) and
- Productive man work units

It is desirable to use several of the listed approaches to determine both the nature and extent of the small farm problem, since each has definite limitations.

A productive man work unit (PMWU) is based on the work performed by an average man in a ten-hour day. The standards used here are commonly used in the great plains region of North America (see Appendix C). Using PMWUs the size of a farm can be measured by converting all the productive work to be done on that farm into the number of 10-hour days it would take *on the average* to do it. This gives a physical basis of measurement which is comparable between different types of farming.

As an indicator of its usefulness the Farmers' Home Administration in the U.S.A. uses PMWU as one measurement of the minimum size of farm on which they will extend a 90 or 100% loan to farm families. In 1952-53 they considered in the State of North Dakota that 325 PMWU would be a minimum for a farmer and his wife if the unit was to be economic and hence the loan sound. At that time a farm that would qualify could have consisted of the following:

8 milk cows	×	10	PMWU =	80	PMWU
7 calves	×	2	" =	14	"
2 sows and litters	×	4	" =	3	"
100 mature poultry	×	.15	" =	15	"
350 cultivated acres	×	.6	" =	210	"
Total				327	

This was considered a minimum to give the family a reasonable standard of living, pay farming costs, pay interest on the mortgage and make principal repayments. This guide, together with farm plans and some of the other standards of adequacy provided a good basis of appraising the adequacy of farms.

The 1958 accounting project of the Saskatchewan Ag. Rep. farm management clubs reveals a very close correlation between the number of PMWUs and gross income. Table I also shows that there is a very close correlation between the number of PMWUs and net return to the operator and his investment.

TABLE I

PRELIMINARY RESULTS OF THE FARM ACCOUNTING ANALYSIS OF 233 MEMBERS OF AG. REP.
FARM MANAGEMENT CLUBS, 1958

Classification	No.	Gross Income	Net Farm Income (1)	Return to Operator (2) to	Percent Return to Capital (3)
Less than 200 PMWU.....	6	4,112	2,026	30	-4.5%
200-250 PMWU.....	20	6,004	1,819	377	-4.1%
251-300 ".....	34	7,632	3,186	1,311	0.0%
301-350 ".....	28	7,464	2,059	931	-3.0%
351-400 ".....	25	8,996	2,207	364	-2.9%
401-450 ".....	29	8,780	2,717	572	0.0%
451-500 ".....	23	10,865	4,474	1,995	2.0%
501-550 ".....	17	12,206	5,144	2,629	3.0%
551-600 ".....	14	13,390	4,060	851	0.5%
Over 600 ".....	37	17,243	4,776	1,897	1.0%

(1) Return to operator and investment owned.

(2) Return to operator after deducting 5% on investment from net farm income.

(3) Return to investment after deducting a wage allowance of \$2,400 plus 10% of gross income from net farm income.

This chart suggests on the basis of 1958 that farms of less than 250 PMWU did little more than return 5% on investment if the operator worked for no allowance. These farms would have great difficulty repaying any credit unless expanded. The farms bigger than this were able to earn the 5% on investment and in general only a modest return to the operator. The unfavourable cost-price relationship that exists and the slightly below average crop in 1958 are reflected in all classifications so must be taken into account.

In the farm management clubs studied, 20% of the farms had less than 250 PMWU per farm, 46% had less than 300 and 67% had 350 or less. Supporting farm management surveys from Manitoba and Alberta suggest that a minimum size of farm is 350 PMWU or more.

Additional research is urgently needed to refine this work unit approach. For example the work units required per cultivated acre are different between the prairies and the park belt. Less work is required to maintain a beef herd in the Maple Creek area where winter feeding is rarely necessary for more than two or three months, compared to Melfort where cattle have to be fed about six months. Acceptable levels of work units will tend to decline with technological improvements and mechanization.

Mr. STUTT: Mr. Nollett, do you suggest there that 20 per cent of the farms are in the small farm category, that 20 per cent are problem farms?

Hon. Mr. NOLLET: Yes.

Mr. STUTT: That would be the implication there?

Hon. Mr. NOLLET: That is right.

Senator HORNER: Have you anything in your brief to say how many of these farms are mortgaged, and how the mortgage is being paid, and what progress is being made?

Hon. Mr. NOLLET: There would not be too many. We did not bring those figures with us.

Senator HORNER: I think it would be interesting to know.

Hon. Mr. NOLLET: It would; and there is quite a lot of land under agreement of sale that is classed as owned land. We do not know. But it is not a problem at the moment. Many had their lesson in the thirties and are not going to mortgage their place again if they can help it. They have had one lesson. I know I have had one. I think I would rather wear the same shoes than go back and mortgage the place now. At least, you would get on your feet that way, wouldn't you?

Better Farm Income Measures

Previously in this submission, we mentioned the difficulty of making any precise measurement of the extent and regionalization of our small or non-economic farm problem. The barrier which prevents such precise measures is the lack of adequate data on farm income. Adequate farm income measurements are available only by provinces. To delineate the small farm problem precisely, we need income data not only on a regional basis but on a type of farming and farm size basis within such regions.

The Department is pleased to endorse the recent survey conducted by the Dominion Bureau of Statistics and we anticipate that the results of this survey will provide some of the information on farm income levels that is so urgently required. At best, however, this survey will provide us with better information for rather broad agricultural regions. We would like to stress the fact that even greater efforts must be made to provide the basis for farm policy formulation.

Vertical Integration

Mechanization and technological advance have made it possible to organize various aspects of agricultural production in factory-like enterprises. Notable examples are in poultry, meat and eggs, with dairy cattle, hogs and beef also showing definite possibilities in this direction.

Grain farming has not been subject to the same organization as yet and is probably not likely to attract capital at present prices. However, should it become more profitable we expect to see further developments towards very large grain farms, using huge machines and where operation is not by the owner but by employees.

We do not feel that this type of enterprise can produce more efficiently or even as efficiently as an efficient family-sized farm. Their threat to the family farm enterprise appears to us to lie in two directions:

- (a) control of the market that will eventually exclude products except from large contracting firms.
- (b) in availability of capital that will offer too strong competition in acquiring land for the private individual to meet.

In Canadian Poultryman issue of March 1959 there is an interesting review of the American Broiler Industry. It quotes from the Select Committee on Small Business of the House of Representatives 1957 that the Committee was of the firm opinion that the broiler industry was one where small business could perform every necessary function as efficiently as a giant concern.

We believe that a family farm enterprise assisted in its marketing functions by the normal sectors of the trade and with from 3,000 to 5,000 laying hens can produce just as good eggs and just as cheap eggs as giant concerns where hundreds of thousands of birds are managed, not by an owner operator but by contract or hired labour.

We consider that it is not in the interests of Canada to continue subsidization of this type of enterprise through feed grain freight subsidies and support prices. This is especially true when they are adding to already burdensome surpluses. The eventual result will be that through market control—not by price competition the family farm engaged in efficient production will be forced out of business.

It appears that vertical integration should be studied in detail and soon especially with regard to:

- (a) Their efficiency as compared to efficient family farm enterprises.
- (b) Their possible future direction, especially with regard to large retail chains in developing monopolies or near monopolies of markets.
- (c) Whether it is desirable that they continue to receive Government assistance that has been designed to maintain socially beneficial family farm enterprises.

APPENDIX A.

RELIEF SERVICES ADVANCES FOR RURAL MUNICIPALITIES AND
LOCAL IMPROVEMENT DISTRICTS AND DIRECT TO FARMERS
SASKATCHEWAN, 1907-08 TO 1958

Relief Season	Amount	P.F.A.A.
1907-08.....	\$ 566,005.91	
1911-12.....	199,859.53	
1914-15.....	8,655,698.41	
1916-17.....	8,484.00	
1917-18.....	123,388.16	
1918-19.....	224,797.95	
1919-20.....	2,660,310.56	
1920-21.....	356,215.50	
1921-22.....	203,948.86	
1924-29.....	97,281.32	
1929-30.....	1,983,176.70	
1930-31.....	4,647,491.52	
1931-32.....	18,342,156.83	
1932-33.....	3,356,101.70	
1933-34.....	12,313,449.67	
1934-35.....	17,843,119.42	
1935-36.....	7,345,824.67	
1936-37.....	18,443,580.40	
1937-38.....	47,816,010.22	
1938-39.....	13,143,326.71	
1939-40.....	2,072,169.60	
1940-41.....	837,382.64	
1929-30 to 1938-39 Relief Roadwork.....	9,992,878.46	
1929-30 to 1938-39 Other Services.....	15,439,353.22	
Total.....	\$ 186,672,011.96	
1939.....		\$ 7,574,890.68
1940.....		5,603,266.80
1941.....		12,010,772.42
1943.....		5,037,472.87
1944.....		2,890,282.68
1945.....	\$ 50,548.22	12,541,768.16
1946.....	10,104.66	9,204,820.72
1947.....		13,368,005.75
1948.....	95,536.64	11,532,255.50
1949.....	136,640.07	15,373,732.75
1950.....		5,608,926.00
1951.....		2,247,920.25
1952.....		810,803.50
1953.....		1,143,177.50
1954.....		21,890,010.25
1955.....		1,291,954.00
1956.....		627,296.00
1957.....	45,154.14	9,919,530.00
1958.....	350,000.00	14,305,372.50
Total.....	\$ 687,983.73	
GRAND TOTALS.....	\$ 187,359,995.69	\$ 153,072,258.33

SOURCE; Saskatchewan Department of Agriculture.

APPENDIX B.
CASH INCOME FROM THE SALE OF FARM PRODUCTS, SASKATCHEWAN, 1928 TO 1957
(thousand dollars)

	Annual Average	1931-1935 Average	1936-1940 Average	1941-1945 Average	1946-1950 Average	1951-1955 Average	1956	1957
Wheat.....	196,480	58,782	80,191	157,312	261,727	369,848	328,091	282,409
Other Grains.....	20,036	5,370	7,016	59,746	68,705	87,446	128,173	78,758
Total Principal Grains.....	216,516	64,152	87,207	217,058	330,432	457,294	454,264	362,167
Cattle and Calves.....	10,421	5,330	11,537	29,613	66,274	62,442	60,632	76,031
Hogs.....	6,998	5,257	7,560	37,691	20,676	24,273	23,494	26,725
Sheep.....	362	310	544	984	1,109	847	697	731
Dairy and Poultry.....	14,572	10,558	13,047	33,313	39,672	45,398	49,618	50,804
Total Livestock and Livestock Products.....	32,353	21,455	32,688	101,601	127,731	132,990	134,441	154,291
Miscellaneous.....	3,163	1,859	2,450	5,278	8,318	8,472	9,179	8,176
Total.....	252,032	87,466	122,345	323,937	466,481	598,726	597,884	523,634
Supplementary.....			1,751	16,687	12,288	6,363	1,179	15,797
GRAND TOTAL.....	252,032	87,466	124,096	340,624	478,769	605,089	599,063	539,431

Source: Dominion Bureau of Statistics.

APPENDIX C

PRODUCTIVE MAN WORK UNITS

USING PRODUCTIVE MAN WORK UNITS TO MEASURE FARM SIZE AND LABOUR NEEDS ON THE FARM

A productive man work unit (PMWU) is based on the work performed by an average man in a ten-hour day. The units required per animal or per acre of land in a certain crop indicate the number of PMWU required during a one-year period for that unit of livestock or crop. It is a measure of the amount of work to be done on a farm.

PMWU Per Farm	No.	Work Standard*	PMWU
LIVESTOCK:			
Cows—milk.....	_____	× 12.0 =	_____
—beef.....	_____	× 3.0 =	_____
Herd sire.....	_____	× 5.0 =	_____
Two-year olds.....	_____	× 2.0 =	_____
Yearlings and calves.....	_____	× 2.0 =	_____
Feeders, fed out.....	_____	× 2.0 =	_____
Sows and boars.....	_____	× 3.0 =	_____
Hogs raised.....	_____	× 0.5 =	_____
Sheep.....	_____	× 0.3 =	_____
Poultry (mature).....	_____	× 0.2 =	_____
Poultry (turkeys raised this year).....	_____	× 0.2 =	_____
(chickens raised this year).....	_____	× 0.1 =	_____
(broilers).....	_____	× 0.05 =	_____
Bees (colonies).....	_____	× 0.5 =	_____
ACRES			
CROPS:			
Cultivated acres (grain, summer-fallow and small seeds).....	_____	× 0.4 =	_____
Cultivated hay and silage crops.....	_____	× 0.7 =	_____
Grass seed crops.....	_____	× 0.5 =	_____
Potatoes, root crops (irrigated).....	_____	× 7.5 =	_____
(dryland).....	_____	× 4.4 =	_____
Canning corn (irrigated).....	_____	× 4.5 =	_____
(dryland).....	_____	× 1.1 =	_____
Canning and shelled peas (irrigated).....	_____	× 2.5 =	_____
(dryland).....	_____	× 0.6 =	_____
Sugar beets (irrigated).....	_____	× 6.5 =	_____
(dryland).....	_____	× 3.8 =	_____
Farm Garden (average).....	_____	× 10.0 =	_____
Custom work (done by me) No. of days.....	_____	× 1.0 =	_____
Days worked off farm.....	_____	× 1.0 =	_____
TOTAL PMWU (Farm size).....	_____		===== (A)

*Subject to revision

Senator BRADETTE: Mr. Chairman, I would like to say to Mr. Nollet that in northern Ontario between the years 1910 and 1930 we bought a lot of grain and it was polluted with weed seeds and the farmers in that area were left with a terrible legacy. Are there any methods in use to prevent that condition recurring?

Hon. Mr. NOLLET: Well, we have better cleaning facilities in the elevators and terminals now and we are making some headway in that. The perennial weeds are still bad, though. We now have the aid of spray chemicals which has helped tremendously in reducing weeds.

Senator STAMBAUGH: You do not ordinarily clean seed grain that you ship?

Senator BRADETTE: That is exactly where we got most of the weeds.

The CHAIRMAN: I would like to ask a question with regard to community pastures. Do you find any greater value in the grass grown in the southern area than the grass grown in the northern areas, as far as feed quality for livestock is concerned?

Hon. Mr. NOLLET: The southern grass is better, it is a higher quality forage, but you have to have a big acreage.

The CHAIRMAN: It would take a bigger acreage to produce the same number of pounds of beef?

Hon. Mr. NOLLET: Yes.

Senator CRERAR: The witness is speaking now of native grasses?

Hon. Mr. NOLLET: Yes.

Senator CRERAR: How will that stack up against cultivated grasses?

Hon. Mr. NOLLET: Not nearly as good. There is a lot of space for improvement of pastures both in the north and in the south. We have been making a rather interesting demonstration in this regard. We made a contract with a farmer to divide his piece of land and cultivate a portion of it in our domestic grasses and then leave the other portion as it was. We discovered that we could increase the carrying capacity some four times over, and on this approved pasture he was able to get heavier weights. We installed a scale and he could weigh the cattle at various times and there would be a return of about \$15 an acre on improved pasture, and that is figuring cattle at 14½ cents a pound, which is a fair return on gross weight.

Senator CRERAR: I was rather interested in the comment that the income from the production of grass seed had declined with your explanation that it was grown in the northern regions. The best alfalfa is grown in what you describe here as the area from Yorkton north.

Hon. Mr. NOLLET: Yes.

Senator CRERAR: This is true of Manitoba as well. There has been a lot of cultivation in hay and grass and this is becoming quite the thing in Manitoba, and there are improved methods of farm cultivation and some astonishing yields are being made. These yields do not come at the beginning but they come later. They are finding out also, Mr. Nollet, that the result of that is that when they take off hay for perhaps two or three years and get into grain and run perhaps two crops of grain and get back into hay they discover in about 10 or 12 years' time that they have doubled the yield per acre for grain.

Hon. Mr. NOLLET: That is right.

Senator CRERAR: I have no doubt that would be also true of Saskatchewan?

Hon. Mr. NOLLET: That is right.

The CHAIRMAN: I would like to point out to the committee that we have another brief on general land use to be presented. Will we start on that now?

Senator STAMBAUGH: What type of seed do you use that seems to give the best results in your pastures, what kind of seed are you using on land that has already been cropped and has come back again to pasture?

Hon. Mr. NOLLET: An alfalfa mixture is the most dependable.

Senator STAMBAUGH: Have you tried creeping red fescue?

Hon. Mr. NOLLET: Yes and we have a new alfalfa named Rambler developed at the Swift Current experimental farm. The following is rather interesting: We took 120 pounds that we were able to get from the experimental farm and took it to California and made a contract with two chaps there to produce seed. We had difficulty producing seed in this particular variety at any rate. It did not develop seed well in Saskatchewan. Last year we got back about 60,000 pounds, and we are getting our seed back at a very reasonable cost and they are being sold to farmers at 75 cents a pound.

Senator STAMBAUGH: That is a creeping alfalfa?

Hon. Mr. NOLLET: Yes.

Senator STAMBAUGH: The cattle do not like crested wheat grass so well—it is a little woody?

Hon. Mr. NOLLET: No, they do not.

The CHAIRMAN: But it is very good in the early spring?

Hon. Mr. NOLLET: Yes.

Senator CRERAR: Is there much development going on in Saskatchewan in the planting of trees?

Hon. Mr. NOLLET: I will cover that in this other brief. That is of great interest now. Some 500 miles were planted last summer, roadside planting, and there will be another 500 miles this summer, roadside planting and tree shelters and the like.

Senator BRADETTE: Mr. Chairman, I would like to refer Mr. Nollet to page 27 of his brief, subsection T, dealing with a comprehensive credit program: "The repayment program should be related to the productive capacity of the expanded farm."

What are the standards by which you judge that? The Ontario Farm Loan Board, I know has some difficulty on that score. Have you struck a standard that would be satisfactory to those who get the money?

Hon. Mr. NOLLET: Yes. We are suggesting here that the credit should be provided to what we would think, and what the economists think, would be a good economic farm unit, with sufficient land resources to make it possible to repay the obligation; otherwise, there is not much purpose in providing credit to an under-sized unit taking into consideration the economic factors, soil productivity and so on, unless the credit brings it up. For instance, a loan might be made to a person to acquire another quarter section of land in a good soil area.

I was mentioning to Mr. Horner that we are not suggesting this is an alternative way of meeting the farm income problem, but if we had good extension services and good farm management programs for each farmer, I think we could bring up our average production, though I am not sure that the Government wants us to do that. One will find in any district two farms, one across the road from each other, where in one instance there will be a yield of 20 bushels to the acre, and in the other, because of the pollution of wild oats and so on, the yield is about five bushels per acre.

Senator HORNER: So the remaining question is that the farmer and his land is more important than the unit, if you intend to make a loan?

Hon. Mr. NOLLET: Yes. You are betting on the person. So, you have to take a careful selection that he has plenty on the ball, and follow up with farm management help.

Senator HORNER: Apropos to what you have said we had before the committee last year the Ontario group who told us of an instance of two farms side by side, one of which had an income of \$6,000 above the other.

Senator TAYLOR (*Westmorland*): When the Minister referred to comprehensive credit program, I think he had in mind first a careful selection of the individual.

Hon. Mr. NOLLET: Yes.

Mr. NELSON: With your permission, Mr. Chairman, are there not cases where the difference may not necessarily be due to managerial ability, and there may be other circumstances? You would have to clear up these other circumstances before you can put two farmers on an equal plane and judge them.

Senator BRADETTE: What do you mean by circumstances?

Mr. NELSON: One fellow can start farming with plenty of capital; he may happen to strike good years and put himself in a position where he can take advantage of everything. His neighbour may come in two or three years afterwards when the circumstances may be quite different, and in 10 years there will be a tremendous difference between the two, which does not necessarily mean that it is due to managerial ability.

—At 12.20 p.m. the committee adjourned to resume at 1.30 p.m.

Upon resuming at 1.30 p.m.

The CHAIRMAN: Honourable senators, we have a quorum, so shall we continue?

Hon. Mr. NOLLET: The other brief that we want to present for your attention and study is a brief on soil and water conservation and land use. One of the reasons we want to submit this brief to you is to give you an indication of the land use programs we have in the province, and to rather emphasize the need, by doing it this way, of a national soil and water conservation and utilization program in Canada.

You have already an indication that in our province the chief problem is one of moisture deficiency. We live in a rather hazardous climate so far as moisture is concerned. Having regard to that we have devised an overall agricultural policy to achieve two primary objectives; firstly, to bring about greater productive stability and consequently income stability to the province, and, secondly, by good land use practices to endeavour to increase the overall production from our soil resources in the province. It is a two-pronged objective.

We have endeavoured to direct all policies in that general direction, and to organize the Department with the same objectives in view. For example, we have an agricultural representative service, which is the extension arm of the whole department. It is this branch that initiates many projects which are associated with land use and for which assistance is made available. Those projects are enumerated in this brief.

Senator McDONALD (*Kings*): How many farm management officials have you?

Hon. Mr. NOLLET: We have five farm management specialists.

Senator McDONALD (*Kings*): Do you not think it would be a good thing to increase that number?

Hon. Mr. NOLLET: Yes, we would very much like to increase it, and to overcome the deficiency. It is very difficult to recruit farm management specialists. We have given short courses in farm management, laying the emphasis in that direction. There is a big field there. We could do with very many more farm specialists.

Senator McDONALD (*Kings*): Do you find the farmers accept their services?

Hon. Mr. NOLLET: Yes, very well. They accept their services very well. In the Ag. Rep. service we have utilized the services of local agricultural committees on a municipal basis. In some cases it is the members of the municipal council; in other instances it is a leading farmer in the municipality, or farmers, interested in agricultural improvement and development. By utilizing local committees we have been able to, first of all, provide a useful service in each municipality. We have asked the local agricultural committees to make a study of their municipalities and their agricultural situation, first to identify their chief problems, and then to bring in policies that will correct, as far as possible, some of their deficiencies. It might be a noxious weed problem; it might be a need for more grazing facilities; it might be any number of problems associated with land use.

We have endeavoured to direct the policy and programs of the Animal Industry branch. This Animal Industry branch has everything to do with animals and animal products. In that are included beef, swine, dairy products, veterinary services, and all those matters relating to the animal industry. We have endeavoured by that program to bring about an overall greater stability in the methods of livestock production, and better grades of livestock.

Then, in the Plant Industry branch one of the chief programs is the forage crop program under which we make forage seed available at cost. In fact, we subsidize it to farmers. In addition, the Plant Industry branch carries on demonstrations throughout the province. As I mentioned this morning, we have done some practical demonstration by entering into an agreement with a farmer whereby he improves his pasture and forage, and keeps records, and we know then what the rate of gain is, and can compare native pasture with the improved pasture, and we can calculate the returns per acre in terms of beef.

Senator McDONALD (*Kings*): I was just thinking whether it would be practical to subsidize the value of farm machinery for co-operative or community work—I mean, among the smaller farms; those which are smaller economic units?

Hon. Mr. NOLLET: Yes, I think it would. It certainly would help them to overcome the problem of a heavy investment in machinery on an individual basis. There are some co-operative farms in the province which are doing quite well. The Matador and the Beechy Co-operatives are the two chief successful co-operatives. They are doing very well.

Mr. STUTT: I think Senator McDonald is referring to the use of co-operative machinery only.

Hon. Mr. NOLLET: Yes, that is true, and I think there is a good field there.

Senator McDONALD (*Kings*): It would give farmers with small units a little bit of encouragement, and I would think in a farming district like yours so much depends on getting equipment that it would encourage a lot of the smaller ones to go in for community plant, and the use of expensive equipment among several farmers. It helps to get the work done, and everybody wants it done at the same time.

Hon. Mr. NOLLET: There are some co-operative farms just for the purpose of machinery, i.e. the common use and purchase of machinery, and they have been operating very successfully. There is a big field there and a good one. There is a wonderful opportunity there to provide farmers with an economic unit. By doing it that way we are sort of formalizing what is taking place where one farmer exchanges machinery with another farmer on an informal basis. It is being formalized and I think it is a wonderful idea.

Mr. Chairman, there are many programs of assistance enumerated here and I will not bore the committee by going through them now. The members

can read this brief at their leisure. Another real significant branch which has a bearing on this overall policy is the lands branch, and we mentioned this morning that we have endeavoured to administer Crown lands in such a way as to achieve the overall objective of first carefully appraising land for its proper use. Its usefulness for cultivation depends on the productivity of the land for grazing. It is quite a job to classify all these lands, and our rentals are made on a basis of the productivity of the land and whether it is disposed of for cultivation or for grazing. In the case of grazing it is done on a carrying capacity basis. We work out a formula taking into consideration the average price of all classes of livestock in the last six months of the year on the Winnipeg market, and we tie it together. Therefore, if cattle prices are up, then our rentals are up somewhat, and vice versa.

In the case of cultivation leases, again the rent is based on the productivity of the soil and it ranges from one-sixth to one-ninth crop share. This Crown land, as I mentioned, has been allocated with the prime objective in view—

Senator STAMBAUGH: What page of your brief are you on?

Hon. Mr. NOLLET: I am taking it at random, and when I come to the water conservation program I will probably read it. The Crown land allocations are made with a view to increasing the size of sub-economic farms. Where it is a large reclamation project the department will undertake to develop it. It may be done by irrigation or drainage; otherwise it would depend on earned assistance under which we will give to a co-operative, an organized group of farmers, 50 per cent of the development costs.

One large dry land reclamation project is located about 20 miles west of Moose Jaw at Mortlach where we have about 9,000 acres we have reclaimed for forage production. The water table is high. This was a good example of land abuse. During early settlement, and subsequently in the thirties it drifted up into the fences. But it is very productive for forage crop production. When we finish this type of development we turn it over to co-operative groups. Here you have an example of a group of co-operative farmers using haying equipment together and doing a job of harvesting fodder and thereby overcoming the hired man problem and the extra cost if they were to buy haying equipment individually.

Senator McDONALD (*Kings*): Many of the members of this committee have seen the soil around the Moose Jaw area. Is it really as good as it looks? I did not get out of my car to test it or feel it but it looked pretty good.

Hon. Mr. NOLLET: Some of the soil north and east of Moose Jaw is heavy clay but as you get west it is very light, sandy soil. Fortunately there is a high water table and we can grow forage crops very successfully. There is a covering of light drift soil on top of heavy clay and the water is held in it.

Another branch of significance is the Conservation and Development branch. This is a new branch which was organized in 1949 and it is responsible for the physical development of irrigation, drainage and dry land projects. It is also responsible for pasture reclamation in the northern part of the province, which involves the removing of brush and reclaiming land to grass. We now have about seven or eight provincial pastures stretching across the northern part of the province, and they have proven very successful and should do a great deal to provide the small farmers in that area with grazing facilities. But much more needs to be done in that direction. It is my belief that any increase in our future livestock numbers will come from the northern country. It will involve extensive land clearing. However, there is one good feature about it. While this land clearing and reclamation could range in cost up to \$40 an acre, once you have got it into grass you have got it for good. I would also say that the carrying capacity in the north is much better than in the south because of better moisture efficiency and better climate. It is not a case of

there being more moisture but with better climatic factors you can produce more cattle. So there are great possibilities there for overcoming the large problem of submarginal or undersized farm units by this kind of project.

The CHAIRMAN: Does it pay to clear that land at a cost of \$35 or \$37 an acre?

Hon. Mr. NOLLET: I would say yes, when you compare it, for example, to the irrigation costs we will be facing, which will range to \$150 an acre. Were there is no continuing expense except to control any re-growth, brush coming back, which we can spray, and you have it for good.

Senator McDONALD (*Kings*): I understand there is very good soil in Senator Aseltine's territory. What is the current value of that land?

Hon. Mr. NOLLET: \$60 to \$70 and \$75 an acre, depending on the improvements made on the land. I know that there has been a slight devaluation of similar land around Regina.

Senator McDONALD (*Kings*): What about that "Tory" Blaine Lake area? That is pretty good land too, isn't it?

Hon. Mr. NOLLET: Yes, particularly where the moisture efficiency is good.

Senator HORNER: There were some good farms there before the provincial Government ran a road through there.

Senator STAMBAUGH: Where you use various grasses for pasture purposes, is there any difference in the grass in southern Saskatchewan and that in northern Saskatchewan? I know there is a vast difference in the native grass but what about the seeded grass?

Hon. Mr. NOLLET: Some varieties of the seeded grass do better in the southern part than in the northern part.

Senator STAMBAUGH: Dealing with the same varieties, does the south give you any more nutrient value?

Hon. Mr. NOLLET: I would not think so generally, but perhaps it would be better than grey bush soils because of the fertility matter.

Senator STAMBAUGH: That is what I meant.

Hon. Mr. NOLLET: It is a soil fertility matter.

Senator STAMBAUGH: There is then some difference in the seeded pasture in the north from that in the south?

Hon. Mr. NOLLET: There would be some; it would not be too marked.

Senator STAMBAUGH: Not as much as in the native grass?

Hon. Mr. NOLLET: No, I would say not as much as in the native grass, because you know how it is in the north with the native grass.

Senator STAMBAUGH: Yes, and I know how it is in the south, too.

The CHAIRMAN: There is some difference in the bread quality in the south from that of the north?

Hon. Mr. NOLLET: The same thing. The protein content is higher than in the south. The south is good if you can raise it. The sod grass cures, does not freeze like the northern pastures do; but for putting in our known grasses in the north and claiming land for pasture the highest carrying capacity would be in the north, very definitely.

Senator STAMBAUGH: You would get more tons per acre?

Hon. Mr. NOLLET: More and more pounds of beef per acre, yes.

There is one thing I should mention as being important. In our province, all the lands in the agricultural area of the province were put under the Department of Agriculture. All Crown lands used to be under the Department of Natural Resources, and the reason for the change was so that the

Department of Agriculture could carry out the kind of program I have indicated to you. Then we set up an inter-departmental committee on land use between ourselves and the Department of Natural Resources. Now, this committee will recommend that certain lands be put into a forest area or taken out of a forest reserve; they will take their recommendations to the respective ministers; and that is done. This division of responsibility for land resources has been a very happy one for us, I think, from the point of view of land use and conservation. At this point, the primary reason I have endeavoured to submit this brief to you is that in any future consideration for a land use policy in Canada, I hope that all of those problems that are in the agricultural belt will be turned over to the Department of Agriculture for Administration of a comprehensive policy. We cannot combine this land use with forestry resources; the two ought to be separated, and for very definite reasons, because in the case of agriculture I think you will find the greatest need for conservation and land use will take place in farm areas. The problem is much different. You are dealing there with thousands of farmers, and we will need all of the extension services and science services of the Departments of Agriculture if we are going to have a comprehensive soil and water conservation policy for all of Canada. So I do hope that whatever comes about in this direction as future Government policy, agricultural resources will be treated separately from forestry resources. There has been a bit of a clash of interests going on for years—I suppose you are all aware of it—but the two can be divided. We have done it very successfully in our province, and would like to see the same thing done on a national basis.

Now, just to indicate that there has been unanimity in thinking amongst the provincial ministers of agriculture in this regard for many years, I might quote to you the resolution passed at the Conference of Ministers and Deputies held at Charlottetown, on August 9-12, 1952. I think you were with us then, Austin, just as you are here now. This was the resolution:

WHEREAS various agencies and organizations across Canada have manifested an interest in conservation and development of soil and water resources, and best possible use of these resources:

AND WHEREAS the conservation and development of soil and water resources are definitely an integral part of agriculture and therefore should be the joint responsibility of the Canada and Provincial Departments of Agriculture:

THEREFORE, to achieve this objective, this Conference of Provincial Ministers of Agriculture strongly recommends to the Government of Canada that through legislative enactment financial assistance be made available to the Departments of Agriculture of the various provinces, to initiate, promote, and conduct on an agreed basis, such programmes or projects as may be necessary to meet provincial needs.

We rather feel that a kind of earned assistance policy should be made applicable to the provinces, for example, the Maritimes for marsh land reclamation, and be flexible and associated with the particular land use problem concerning a particular area of the country, that if this were done the province could discharge its responsibility with some additional help from the Federal Government. For example, in the case of drainage, our policy at present is this: We will pay 50 per cent of the cost of drainage installation, but at the moment we do not have any takers under that policy. The farmers are burdened now, their taxes are going up, and even if they are subject to flooding they are very reluctant to put in additional money, and we think if half of this could be shared, or 25 per cent put on the farmer, on the land benefited and the rest shared equally between Federal and Provincial Governments.

we would get a lot farther with this program. The same with dry land reclamation, pasture reclamation. You could apply this to innumerable approved land use projects, that could be approved by the National Government, and then supported through earned assistance. It would remove quite a lot of conflict and duplication. The P.F.R.A. has done an excellent job in our province, but they are in the pasture business, and I think in land use it ought to rest with the provinces with earned assistance. I think it would be better also from the National Government's point of view. So most specifically the following submission was made to Mr. Harkness on September 5, 1957, in connection with what we thought would be the basis for a comprehensive land use and soil and water services policy for Canada:

(A) LAND USE: SOIL AND WATER CONSERVATION

The following resolution was approved by our Provincial Conference in 1956 and was placed before your predecessor:

"WHEREAS various agencies and organizations across Canada have manifested an interest in conservation and development of soil and water resources, and best possible use of these resources;

AND WHEREAS the conservation and development of soil and water resources are definitely an integral part of agriculture, and therefore, should be the joint responsibility of the Federal and Provincial Departments of Agriculture;

THEREFORE to achieve this objective, this Conference of Provincial Ministers of Agriculture strongly recommends to the Government of Canada that through legislative enactments, financial assistance be made available to the Departments of Agriculture of the various Provinces to initiate, promote, and conduct on an agreed basis, such programs or projects as may be necessary to meet provincial needs."

We consider that such a policy can best be implemented by the enactment of new Federal legislation designed to provide participation with the Provinces in such activities as the development of:

- (a) Irrigation projects.
- (b) Drainage and dyking projects.
- (c) Control of river bank erosion.
- (d) Flood control projects.
- (e) Reclamation projects such as community pasture construction and improvement.
- (f) Other types of projects which may be agreed upon and which could include land clearing, assistance in excavation of dug-outs or construction of small dams for provision of water for domestic use or for stock watering.

We recommend respectfully but emphatically that the Federal legislation we propose be Canada-wide in scope and application. It should be sufficiently flexible to permit Federal participation in the various types of projects which should be considered in the broad fields of reclamation, conservation and rehabilitation as these are peculiar to each Province, and to provide for agreement on the sharing of costs in accordance with the nature of the projects.

The Prairie Farm Rehabilitation organization and the Maritime Marshland Reclamation Authority could, we feel, be integrated into and form the nucleus of an agency that would have responsibility to negotiate and implement at Federal level the general policy we have in mind within the framework of the new legislation we recommend.

It is suggested that as a basic principle of soil and water conservation programs, the general approach should be on a shared cost or earned assistance basis for the whole cost of a completed project including maintenance in succeeding years.

In our opinion, the Federal-Provincial Agreements now in effect for the construction of the Trans-Canada Highway provide a form of inter-governmental agreement which could be the general basis for agreements contemplated under the legislation and policy we recommend.

It is also respectfully suggested that a proper role for the senior government would involve mainly:

1. Provision of financial assistance in connection with agreed upon projects, on an approved basis.

2. Making top level technical and professional advisors and consultants available, as requested by the Province.

That is about it. I will file this submission with the committee for your guidance and so you will know our views in that regard.

Now, that was the principal part in our land use brief that we submitted. It gives you a considerable indication of the problems in the province and it indicates that while we have made a start in the province, we find it is a big job, but with participation on the part of the national Government we could move along much faster and more adequately meet the entire problem.

I tried to cut corners today and make it quick because I know you will have to go to the house shortly. I will stop here and leave the meeting open to ask me questions, if that is your desire, Mr. Chairman, and if anyone wishes to make reference to the map I will try to give him the information, and if not Mr. Horner and Mr. Mitchell are here and they are familiar with it.

Senator BRADETTE: Mr. Chairman, I would like to ask Mr. Nollet why this very stiff divorcing of forests and land in Saskatchewan. You say that the forests should not be under the jurisdiction of the Department of Agriculture. Is there any real reason for that stand? Of course I know that your land in Saskatchewan is mostly good farm land, and not like areas of Ontario where there are definite forests areas. What is the main reason for your separation of these resources?

Hon. Mr. NOLLET: I believe it is for this reason. Our agricultural problems are perhaps more severe in Saskatchewan than in any other of the provinces, and in our province too there is a pretty clearly defined line between what is the forestry area of the province and what is the agricultural area. We felt that if all of these resources were to remain in the Department of Natural Resources there would be very little interest in introducing policies that would help agriculture in this whole southern area and so all lands that had to do with agriculture were transferred to the Department of Agriculture. Our map shows roughly the line of division between the large blocks of forest land and agricultural land. In the fringe area between the two there are areas which are questionable as to whether they should go to Agriculture permanently or go to Resources permanently for tree growth. And that is the function of this provincial committee on land use: they can recommend that maybe a lock in an agricultural area which is no covered with trees be put into the forest area and similarly if there is good agricultural land in a forest area that had been burned over and it would be unwise to wait for a regrowth, the committee would agree to turn that over to agriculture. We thought this division was quite distinct and clear and instead of creating a conflict it has facilitated forestry protection here and it has facilitated the conservation of soil and water from an agricultural point of view. Agriculture has the staff, the extension people, the water rights branch is in the Department of Agriculture and all this other legislation having to do with drainage and irrigation is in the

Department of Agriculture, so it looked logical that the administration of these lands should come under Agriculture. We think it could also be worked out on a national basis. Here it must be remembered that we are dealing with people. If you have an erosion problem in the north you have what is known as a physical problem on your hands having to do with an erosion problem and you can proceed to improve conditions, but if you have a problem in an agricultural area because of bad farm practices you have an individual there that you have to deal with.

The CHAIRMAN: I understand that forestry in Saskatchewan is a little different to the forestry problems having to be met by Ontario or Quebec where tree farming is carried on in conjunction with agriculture.

Hon. Mr. NOLLET: We do not have wood lots on tree farming to the same extent as you have here.

Senator BRADETTE: In the press for the last few years reference has been made to the artificial lakes that you have created and it is said that some wonderful fishing has developed. I was in Israel on two occasions and I noticed that farming goes with fishing on Israeli farms. I would like to know if anything is being done on that score in Saskatchewan, or in the west.

Hon. Mr. NOLLET: No. There are a lot of dams where fish have been stocked, but this is mostly for sport. No commercial fishing has developed out of it.

Senator CRERAR: In this second memorandum of yours, Mr. Nollet, it would seem that you have quite a program under way for planting of trees along roadways. Have you any difficulty in getting these established?

Hon. Mr. NOLLET: No, not too much, Senator Crerar. It is not difficult if the land is well prepared, and we, as you notice, pay earned assistance up to \$16 a mile and we also pay half the cost of a tree planter.

Senator CRERAR: How wide would that tree planting be along the roadway?

Hon. Mr. NOLLET: Single rows, mostly along the road and as field shelterbelts.

Senator CRERAR: What species do you find most successful?

Hon. Mr. NOLLET: Carraganas, maple, ash and so on. In planting they prepare the ground well, it is summerfallowed and you just drop the trees in from a planter and a mile can be done very quickly. Of course, subsequent cultivation is required.

Senator CRERAR: The primary purpose of this is to break the force of the wind.

Hon. Mr. NOLLET: Yes; also to protect the municipal roads; the windbreak must be back 175 feet from the road, so that the shelter belt will change or break the speed of the wind.

Senator HORNER: The practice now is to keep the trees well back from the road; in that way the farmer gets the benefit of the moisture, rather than having it run down the roadside; the farmer gets the benefit of the drifted snow on both sides of the fence.

Hon. Mr. NOLLET: That is right.

Senator CRERAR: As a matter of fact, you can grow trees almost anywhere in Saskatchewan, can you not?

Hon. Mr. NOLLET: Yes.

Senator BRADETTE: Not commercial trees.

Senator CRERAR: Many years ago when I was with the Grain Growers' company, travelling over the prairies, I was astonished to find at times a farmer who had a good planting of two or three acres of trees around his buildings. What struck me very forcibly was the fact that here was a shelter

belt of an excellent growth of heavy trees, and to cast your eye for miles around you would not see a shrub.

If I may add, I think it was a great misfortune when we opened up settlements in western Canada 70 years ago, that we did not provide for the planting of more trees.

Hon. Mr. NOLLET: Yes.

Senator CRERAR: We would have modified the climate tremendously and to a great extent corrected the drought conditions.

Hon. Mr. NOLLET: Yes. The test in the Conquest area showed three bushels per acre more yield close to the shelter belt. The wind does drop—it breaks the hot winds.

Senator CRERAR: I would say that is an excellent program.

The CHAIRMAN: Does the Land Utilization Board still acquire land?

Hon. Mr. NOLLET: Yes.

The CHAIRMAN: Are there still lands being abandoned?

Hon. Mr. NOLLET: No. We are doing it a different way. No more lands are acquired under tax lien. They are bought to be put in community pastures. In some cases where the municipality wanted the land back, we gave it back. The Land Utilization Board does considerable by way of exchange of land. We needed to take another step, and set up a revolving fund, under which we could sell some land to a farmer and take money from this fund to buy land. We might even buy land for an individual who needs another quarter section, or lease it to him, or lease it for use in a community pasture for a fodder project.

The CHAIRMAN: That is what you are using the Land Utilization Board primarily for?

Hon. Mr. NOLLET: That is right. We are also buying land. For instance, we may take \$150,000 and buy a complete ranch, mostly for community pasture, pretty well all submarginal land.

Senator McDONALD (*Kings*): Would you mind telling us more about your community pastures? You dealt with it briefly. I think it is a splendid idea; they are starting in my province, but I cannot take any credit for them. My successor started them, and now we have two community pastures. You buy the land, do you?

Hon. Mr. NOLLET: Yes.

Senator McDONALD (*Kings*): And then do you seed it?

Hon. Mr. NOLLET: Wherever there is re-grassing required, we do it.

Senator McDONALD (*Kings*): And you charge so much to a farmer?

Hon. Mr. NOLLET: That is right, we charge so much a head for the use of the pasture.

Senator McDONALD (*Kings*): How much?

Hon. Mr. NOLLET: \$13 to \$14 for cow and calf, including breeding services.

Senator McDONALD (*Kings*): For what period?

Hon. Mr. NOLLET: For the six-month grazing period.

Senator McDONALD (*Kings*): How far away may a farmer live and still enjoy the privileges of community pasture?

Hon. Mr. NOLLET: They come from a long ways, some as far as 50 or 100 miles.

Senator McDONALD (*Kings*): You don't limit them by distance?

Hon. Mr. NOLLET: No, we do not, but the farmer nearest and the small farmer get a preference—that is the purpose of it. However, we sometimes have

the problem that before the pasture is full the big operator comes in, and it is sometimes hard to get him out.

Senator McDONALD (*Kings*): Do you fence the pastures?

Hon. Mr. NOLLET: Yes.

Senator HORNER: And you limit the number of cattle that may be pastured in each?

Hon. Mr. NOLLET: We hold it down to its long-term carrying capacity.

Senator McDONALD (*Kings*): Do you keep any sheep?

Hon. Mr. NOLLET: Not many; we are very low in sheep. We had about half a million head during the war years, but we have dropped down to below 300,000 head.

Senator STAMBAUGH: Do you put them in the same pasture as the cattle?

Hon. Mr. NOLLET: No, we put them in separate pastures at Matador; they must have a herder. Sheep and cattle don't go very well together.

So, you have the idea of it: there are about $2\frac{1}{2}$ million acres, about 56 P.F.R.A. pastures with 1,600,000 acres, and 95 co-operatives. Pretty well all the co-operatives earned half the cost of the development of the pasture. Usually what happens is we put in the money for the purpose of buying wire and fence posts, they put in the labour, and we offset one against the other. Similarly, where a co-operative group endeavours to clear land and re-seed it again to grass, as I mentioned, the cost is considerable—it probably runs up to \$30 an acre. So, even though we pay half of that, they have to wait a long time for the return of their investment. That is why we would like to see participation by the senior Government.

Senator McDONALD (*Kings*): How much do the animals gain in weight over a season—for instance, a two-year old?

Hon. Mr. NOLLET: Three hundred pounds.

Senator HORNER: Does your charge per head include dehorning and vaccinating?

Hon. Mr. NOLLET: It includes everything; and in most of our pastures we provide sires too. It has done one great thing, it has improved the quality of our livestock faster than any other program we have ever had. Our livestock quality is now very good.

At Regina beach there is a good example of what can be done by way of land utilization. A pasture was started there, and each farmer wanted a piece of it for himself. We said, that was not its purpose, and we went to work and seeded it with alfalfa, crested wheat grass and some brome grass, fenced it and put corrals up. Finally we opened the pasture with 125 head. The first year we took—three shorthorn bulls up—and when the farmers saw these bulls that sold them. From 125 head we went up to 550 head, which was the carrying capacity of the pasture. That pasture carried 550 head, and from it was cut enough feed to provide for those cattle all winter. That was a pretty good demonstration of what can be done by putting in domestic grasses and re-claiming.

Senator STAMBAUGH: Are you going entirely to Shorthorns?

Hon. Mr. NOLLET: No. Herefords are favoured. The patrons expressed their wish for Shorthorns and Herefords. This year we went to the sales, and the Herefords were selling pretty good, so we bought Shorthorns at what we thought were bargain prices. So we said, "It is Shorthorns this year."

Senator McDONALD (*Kings*): Are Herefords regarded as better than Shorthorns or Polled Angus?

Hon. Mr. NOLLET: Naturally I would say Polled Angus, but the beef breeds are all good. The Shorthorn is a wonderful farm animal for beef purposes; the

Hereford is a good range animal, and the Polled Angus is also a very hardy animal, and no trouble with calves.

Senator STAMBAUGH: Those community pastures must be a great help to the small farmer.

Mr. HORNER: They are.

The CHAIRMAN: Could you describe the soil formation in that Regina Beach area? It will give us an idea.

Mr. HORNER: I will do that very briefly. I would say it is land that was all farmed at one time, and land that went back to the municipality during the thirties for taxes. The tax liens and tax sale certificates were turned over to the Land Utilization Board. It is sandy land, and a considerable part of it would move into sand dunes, I think, without too much encouragement. There is some gravel, and it has a pretty fair water table. I have forgotten just what the acreage is now in that pasture, but I think it is less than 4,000 acres and the number of head of cattle it carries is three times what it could carry under its original or normal grass cover. We are trying to put alfalfa into these pastures. We have had some trouble keeping with bloat, but it certainly increased the carrying capacity by a tremendous amount.

Senator STAMBAUGH: Are you using this new type of creeping alfalfa?

Mr. HORNER: This only came out in the last two years, but we are using it now.

Senator STAMBAUGH: Does it yield as much as the other?

Mr. HORNER: It will yield as much on the first cutting, but not on the second cutting.

Senator McDONALD (*Kings*): You do not mix anything with it?

Mr. HORNER: Yes, the Regina Beach is seeded with a mixture of alfalfa, crested wheat and brome grass.

Senator McDONALD (*Kings*): And it does not smother it out?

Mr. HORNER: Not at all.

Senator HORNER: Does it injure the alfalfa to take a second cut?

Mr. HORNER: Not if it is taken early enough in the season.

Senator HORNER: You have to do that to allow some growth?

Mr. HORNER: Yes, so that it can get back up before the frost.

A SENATOR: Will late pasturing kill alfalfa.

Mr. HORNER: If you pasture it heavily too late it certainly will, although in sandy areas like Regina Beach and Mortlach where there is a fairly high water level it will not because it does get down to the water table.

Mr. STUTT: Mr. Nollet, I wonder if you would mention something about your policy and program in regard to your forage bank in the way of encouraging farmers to build up forage reserves for winter feed.

Hon. Mr. NOLLET: That is one of our bigger problems. One of the things I am always afraid of in the province—and I was a municipal reeve in the thirties—is a shortage of feed, and our problem is to get the farmers to build up their feed reserves in the good years, and to make them understand that the bad years are coming back.

To demonstrate what we did undertake in the way of fodder development, and what we got into as a provincial Government, we constantly kept before the farmers the desirability of doing the same thing on their individual farm units. We told them they could not depend on the Government any more. There were no large areas from which we could get fodder in the event of two or three years of drought, so we told them to build up their own reserves. I know there are limitations there to what a man can do. I think one of the

limiting factors would be the improper protection for any fodder you might put up and have to carry for two or three years, because it does deteriorate very rapidly, as has been our experience.

We are toying with the idea—and I think we mention it in the brief—that some assistance could be given on an individual basis to put up some kind of a roof, to put up barns, in order to give it protection. That would give encouragement to the idea of building up these fodder reserves.

We are certain that if farmers do that, and we go more in the direction of producing cattle and sheep, we can build up a pretty sound basic agricultural economy in Saskatchewan. I believe we can do all these things together.

It looks bad now, but last year was very dry, as you know, and again, we got out of the business of going out and buying hay as a provincial Government. What we do now is to pay transportation assistance, and we use the press and the radio to say to the farmers: "If you have fodder for sale list that fodder with us". We pass that information around the drought areas, and the two farmers get together, and we pay the transportation costs. It puts the onus and initiative on the farmers, and we do move a lot of feed in that way. If a farmer gets a bad crop one year and has to go to Quill Lake to get feed to send down to Climax, then, if he has a good crop the next year he will put up that extra, and we keep talking about it every year.

But, if you have two dry years in a row it is pretty tough. There are financial limitations and there is the problem of labour, and it is pretty hard for a farmer to get two years' supply ahead. If they get one year ahead they are doing very well.

Senator McDONALD (*Kings*): Agricultural education is very important—at least, we think so, Mr. Minister, and I know you do too. Are you making satisfactory progress in that regard?

Hon. Mr. NOLLET: I think so.

Senator McDONALD: In boys' work, and in the agricultural college? Are more going to the agricultural college? Are you holding a lot of short courses all over the province?

Mr. NOLLET: Yes, very many.

Senator McDONALD (*Kings*): How is your attendance coming along?

Hon. Mr. NOLLET: At the college?

Senator McDONALD: Yes.

Hon. Mr. NOLLET: At the college I think they are down a bit.

Senator HORNER: The School of Agriculture is pretty tough.

Hon. Mr. NOLLET: Yes, the school is down somewhat. That is a two-year vocational course and the attendance there is down. Usually, in our province when economic conditions get bad on the farms, attendance at the central schools, like the College and the School of Agriculture, goes down, and, similarly there has been some tapering off in the six-week vocational courses, too. A lot of it is being met, though, I think, by the Ag. Rep. program, and the agricultural committees. They hold an awful lot of meetings a year on farm management and land use, and some of the larger units are becoming interested in vocational training as well.

I think the appreciation of the agricultural scientist on the part of the farmers is greater now than it has ever been, and particularly in regard to farm management. The farmers just eat it up, and we could not begin to get enough men to meet the demand. It is almost on a specialist basis, where the farm management specialist will take each farmer and help him set up his books and advise him. We cannot begin to do it all with specialists so we are training the Ag. Reps. and we expect to use them as farm management specialists.

We will have one farm management specialist in Regina at the central office and the other four will be in different parts of the province; the northwest, the northeast, the southeast and the southwest. We hope to encourage farm management club leaders in the community and let them help carry the ball with respect to farm management extension under the direction of the specialists. We think it is a good idea to get the farmers involved and to get them talking amongst themselves.

Senator CRERAR: Mr. Chairman, this has been a very informative brief. I agree that it would be great if Saskatchewan could build up a healthy and diversified agriculture. I suggest that the planting of trees in areas where you can get them to grow will in 25 or 50 years pay heavy dividends. I have just one other comment. I frequently heard when I was in the House of Commons, and even in that sedate and informed body, the Senate, complaints that the farmers of Saskatchewan were nothing but wheat miners. I would draw to the attention of the committee the fact that in 1958 the sale of hogs and cattle in Saskatchewan amounted to \$185 million, which rather dissipates the idea that Saskatchewan farmers are confined to growing wheat.

The CHAIRMAN: Is there any particular area left in Saskatchewan where you have the small uneconomic farm problem?

Hon. Mr. NOLLET: Yes. I would refer the committee to page 13 of the main brief. It will give you the census figures. I would like to make the comment that you can never really define what an economic farm unit is. It just can't be done. I don't think we ought to ever say that it has got to be a pretty big unit, for it just depends on what the farmer wants out of life. If he wants a big car with fins on it and running water and luxuries, well, yes, you need a lot of land to support that kind of income.

Among my neighbours are very desirable types of farmers; who have only half sections and a good comfortable home and who have educated their children well. They happen to be of English and Scotch descent. I have watched their children grow up and move into places of distinction. So how do you determine what the size of a farm should be? One farmer may be a good operator and do everything in a meticulous and timely manner. He will have a yield of 20 bushels per acre. His neighbour, living on similar land, may only produce five bushels an acre. Perhaps he has had his troubles in farm management, and so on, but there is that difference. So, if a farmer is satisfied to have a reasonably good home and live comfortably and doesn't care for a big car, if he is satisfied to go to a movie in the little town on Saturday night, and if he is satisfied to drive a second-hand English car and is able to go fishing once in a while, well, he has a lot more peace of mind than I have ever had. I know that.

Senator CAMERON: In terms of the total economy of the province, what percentage of the total population is on the farms now?

Hon. Mr. NOLLET: Actually on the farms, about 45 per cent.

Senator CAMERON: I am you neighbour on the west, and our population is 40 per cent rural, and 15 per cent of that 40 per cent is living in villages; 25 per cent are on the farms. This has an important bearing on the total picture in 20 years. You say 45 per cent?

Hon. Mr. NOLLET: I think 45 per cent; but I think if you took the farmers living in urban centres we would go up quite a bit. Twenty per cent in the south or the prairie areas of the province live in urban areas, and they farm from town. In the northern area of the province it would be considerably less than that.

Senator CAMERON: But that is not the figure I want. What percentage is given as occupied farms, that is, the population living on the farms? Ours is 25 per cent net.

Hon. Mr. NOLLET: Well, ours would be not less than 40 per cent certainly, maybe a little more.

Senator STAMBAUGH: Actually living on the farms?

Hon. Mr. NOLLET: Yes.

Senator CAMERON: Because in terms of social services the disruption today is terrific—schools and everything else, and it has a bearing on everything we are discussing.

Hon. Mr. NOLLET: The disruption is a real problem with us. We have power all over the place, and we are going up to three miles now between farms, and if we thin our farm population any more, goodness knows what would happen. I do not think we can expand much more horizontally. I think we have to look within the fence boundaries now and see what we can do to work these resources better; and then of course prices are a big factor, price relationships. No matter what people's philosophies have been, our farmers in 1957, for instance,—I think we had a total farm bill of some \$525 million. Well, the total farm income was not enough to meet that bill of taxes, and power, depreciation on machinery, and so on. That money has got to be in the hands of those farmers, come hell or high water, crop failure, or what happens. I have often thought that we went about this matter very carelessly of trying to support farm income, that we have to be realistic, and if we intend to support farm income, certainly we have to pay people for what they do, for what they produce. Well, you cannot pay them for taking acreage out of production, or on an acreage basis. I think it is the wrong way to measure the amount of income to go into the hands of the farmers. I would say pay it out on a price basis and recognize that farms are big, some excessively big, and some smaller and recognize that there are crop failures that have a bearing on farm income. I think once it is paid out we ought to make deductions just like with the income tax. The farmer with the heaviest volume of marketing would contribute more to a fund that could be used to bring about some equalization of repayment in the case of crop failure, bringing the farm people that same kind of organized security that is well accepted in industry; and I believe we will have to do it, following those kind of principles. Then if the national Government wants to pay deficiency payments, let us bolster the whole works. I do not think the consumers of Canada or anyone could argue against it. Now, some will say that we don't want to help the big farmer, but we will have to have some measure of how much this big farmer has to pay, something along the P.F.A.A. lines, but something more successful, and really charge him. If he wants to play around, let him play, but there is a deterrent there, and he will wake up some day and say, "I can get security on a section, so I will dispose of one of these sections". There is the deterrent to this big farming business. It is the most painless and effective way. It is accepted in the income tax field.

Senator CAMERON: This \$500 million cost of production, can you tell me where those statistics were gathered from?

Hon. Mr. NOLLET: They are from D.B.S. figures, and I think they were gathered by one of our agricultural economists, for my purpose, because I felt it is our approach to the subject. I asked, "How much income from all sources, cattle, wheat, grain, everything, last year?" Well, subtracting expenses I found out we were \$125 million in the hole.

Senator CAMERON: I think these figures would be very useful to the committee, Mr. Chairman.

Hon. Mr. NOLLET: We could send them to you.

The CHAIRMAN: Gentlemen, if there are no further questions the meeting will adjourn.

Senator BOUCHER: Mr. Chairman, before the meeting adjourns I would like to move a hearty vote of thanks to Mr. Nollet for the very comprehensive and instructive brief that he has presented to our committee today.

The CHAIRMAN: I am sure all members of the committee will agree with that. We thank you, Mr. Nollet.

Before members of the committee go, I want to mention that the Clerk has the complete set of reports of the Royal Commission on Agriculture and Rural Life in Saskatchewan, and if any senator wishes to take any of the issues away and read them and bring them back again, he is free to do so. They are in the Clerk's office, Mr. James D. MacDonald, Room 369-E, the Senate.

Senator CRERAR: Will it be distributed?

The CHAIRMAN: We cannot distribute it because we only have one copy of each of the 14 volumes, which are as follows:

1. The Scope and Character of the Investigation.
2. Mechanization and Farm Costs.
3. Agricultural Credit.
4. Rural Roads and Local Government.
5. Land Tenure Rights and Responsibilities in Land Use in Saskatchewan.
6. Rural Education.
7. Movement of Farm People.
8. Agricultural Markets and Prices.
9. Crop Insurance.
10. The Home and Family in Rural Saskatchewan.
11. Farm Electrification.
12. Service Centers.
13. Farm Income.
14. A Program of Improvement for Saskatchewan Agriculture and Rural Life.

We also have on hand the 53rd annual report of the Department of Agriculture of the province of Saskatchewan for the 12 months ended March 31, 1958.

The committee adjourned.

APPENDIX "C"

PRESENTATION TO THE
SENATE COMMITTEE ON LAND USE

by the

SASKATCHEWAN DEPARTMENT OF AGRICULTURE
—SOIL AND WATER CONSERVATION AND LAND USE—

INTRODUCTION

There is still room for improvement in the operation of a considerable number of farms. The use of the proper implements, the timeliness of operations, thoroughness and care in applying operations and use of fertilizer and weed spray all have a bearing on yield.

In a study of farm practices in four municipalities in the Regina Clay Area and five municipalities in the Weyburn area in 1951 conducted by the Dominion Economics Division, the following differences in average yields of wheat in the 1950 and 1951 crops was found to be as follows:

	<i>Consistently low yielding farms</i>	<i>Consistently high yielding farms</i>
Loam soils	19.0	23.0
Clay soils	17.3	31.7

These were good crop years when good practice yielded a maximum return. No one practice could be determined that made the difference, but it was indicated that practices followed more consistently by high yielding farms appeared to be those that required additional expenditures such as type of machinery used, number of operations in summerfallow, weed spraying and fertilizer.

About 25% of the farms surveyed were segregated with about half in the high yielding and half in the low yielding group. There were no sharp distinctions in acreage of farm.

It may also be emphasized that the small farm and the low income farm is handicapped in attempting to increase the productive base or capitalization of the farm. Opportunities are open for expansion within many farms, without expanding acreage, or without replacing other farms. Some of the most common in Saskatchewan are:

- (a) In the Park belt and Grey wooded Soil Zones the improvement of additional arable land within the existing farm. This may cost from \$15 to \$35 per acre, depending on the tree cover.
- (b) In correcting flooding problems over a wide area but concentrated particularly in the two Park Zones. Sporadic flooding of considerable acreage occurs with effects ranging from delayed seeding to making crop production impossible for a number of years.
- (c) Opportunities for irrigation development or spring flooding schemes for flood control.
- (d) Towards improved and increased livestock production with requirements for water and buildings.
- (e) Towards increased yields and production through better management and additional inputs of capital into the crop production process.

The direct encouragement and support of this type of improvement has usually been considered the responsibility of provincial agricultural departments, except for the credit field.

The Department of Agriculture for Saskatchewan undertakes programs in all these directions with a view to assisting the too-small farm to increase its productive base and the existing adequate family-sized farm to maintain their position. These programs, as well as being aimed at the economic well being of farm families also have as their objective the development, use and conservation of the soil and water resources of the province. Soundly based, well managed farms and fundamental to good use of the province's resources. Conversely, sub-economic units with low standards of living result in misuse and waste and, on occasion, destruction of the top soil and water-sheds on which a large part of our economy depends.

The organization of the Saskatchewan Department of Agriculture is designed to emphasize good land use and soil and water conservation as well as the more traditional aspects of agricultural improvement work.

Administration of Crown lands, outside of forest reserves, was transferred to the Department in 1947. The following year, administration of water resources and The Water Rights Act was transferred to the Department. In 1949, the Conservation and Development Branch, staffed at present with 25 engineers and nine agrologists, was organized.

These three developments placed the Department in a position to develop a fully integrated land use and water development program with the necessary staff and resources to give it effect. It centralized within one Provincial Department with resources and staff required to co-ordinate and develop programs in conjunction with other agencies, particularly P.F.R.A.

The Department is at present organized into five major Branches: Agricultural Representatives (Extension), Animal Industry, Plant Industry, Lands Branch and the Conservation and Development Branch.

Almost the entire potential agricultural area of Saskatchewan is settled and has been the subject of a soil survey. The area of the province that has been surveyed as to soil by the Saskatchewan Soil Survey, a co-operative arrangement between the Dominion and Provincial Departments of Agriculture and the University, is as follows:

	Area Covered (sq. miles)	Area Mapped (sq. miles)	Acres
Soil Survey Report No. 12....	106,000	96,000	61,500,000
Soil Survey Report No. 13....	15,000	9,880	6,323,000
Total	121,000	104,880	67,823,000

The census of 1956 showed that a total of 62,794,000 acres were in occupied farms. Of this, 40,506,000 acres are improved land, 19,909,000 acres of woodland.

In this area of the province, approximately 7,744,000 acres are Crown lands, administered by the Lands Branch of the Department. 1,466,000 acres of Crown agricultural lands that are not occupied and 2,434,000 acres in community pastures comprise the bulk of the surveyed but unoccupied acreage. Therefore, problems of conservation and land use are centred very largely on privately owned lands being used by farmers.

There are few activities of either the Dominion or Provincial Departments which do not have a bearing on the problem. The provision of farm credit, farm management training, the 4-H Club program, livestock improvement policies, research, etc., etc., are all an integral part of the overall program designed to improve the use and handling of our land and water resources. Some, such as performance testing in beef cattle, have long range, others such as grasshopper control have immediate implications. However, in order to provide some limits and to keep this report within reasonable bounds, an attempt has been made to deal very briefly only with some direct action programs.

1. Extension Program

Agricultural Representative Services are organized under *The Agricultural Representative Act*. The Act provides for District Agricultural Representatives, Agricultural Conservation and Improvement Committees in each municipality, and a Board in each District, as well as a Provincial Advisory Council made up of representatives from the University's College of Agriculture, Federal and Provincial Governments and farm organizations.

There are now 37 Agricultural Representatives and six assistants plus one to cover the area north of farm settlement. The average district consists of nine municipalities and 2,800 farms. Five Farm Management Specialists and one Farm Mechanics Specialist service the requirements of the Ag. Rep. in these fields. Under the Cooperative Agricultural Extension Program, specialist services are available from the University and Federal Department.

Agricultural Conservation and Improvement Committees are made up of farmers appointed and paid by the rural municipality or local improvement district. The committees assist the municipal unit and the agricultural representative in planning and carrying out conservation and improvement on a municipal basis. In 1958, 297 committees of 2,127 members held 633 meetings in conducting programs.

District Boards are made up of one representative appointed by each municipality in an Ag. Rep. District, together with half this number appointed as members at large. In 1958, there were 58 board meetings held to plan and co-ordinate conservation and improvement programs.

With the participation of local government through Agricultural Committees and District Boards, the Ag. Rep. Branch is responsible for development of the Extension Program. Policies of the other four departmental branches and of the Federal Department promoted through the Agricultural Representative.

With the help of the "Ag. Rep.", agricultural committees have carried out 135 completed Land Use Surveys of their Municipality. Nine more are underway. These are used in Committee and farmer meetings. Last year, about 390 meetings were held on strictly land use and conservation topics. In the last six years, 980 demonstrations of forage crops for pasture and hay have been established with a total acreage of 12,050.

A special program started in 1957-58 is attempting to offer Farm Management advice to farmers and to encourage them to study their business. There will shortly be on staff five farm management specialists, and in addition, Agricultural Representatives are being given courses in extension work in farm management. Last year, 23 Farm Management Clubs, with about 350 members keeping detailed accounts, were in operation. It is expected that in 1958-59 about 75 clubs will be in operation, with about 1,200 members.

It is thought that this fundamental approach through extension methods will, if the program can be extended satisfactorily, be of major assistance to small farms in identifying their position and possible way of improving it, as well as to well established family size farms in improving their operations and management.

Some of the fundamental problems of land use and soil conservation in Saskatchewan arise from the emphasis on grain production. Hazards of crop failure, hay shortages and lack of water have made many farmers cautious of depending on livestock. Liquidation of herds has taken place periodically during drought periods such as 1920, 1937 and 1949. Many of the programs of the Saskatchewan and Federal Departments are directed towards improving

these conditions and encouraging farmers to undertake a group approach to solving their problems. Examples of Provincial programs are:

- (a) The Provincial Forage Crop Program is directed toward increasing the use of alfalfa in mixtures for feed and soil conservation. It is furthered through demonstrations and the extension program, plus subsidized forage seed sales to farmers on a per-acre basis. Over 43,000 orders have been received since the program started in 1947. Almost 7 million pounds of seed have been distributed to sow about 820,000 acres. In the last six years, 900 demonstrations have been established. Seed is sold as mixtures to farmers in spring and fall programs on an acreage basis at carload cost prices.
- (b) Provincial fodder reserves have been maintained since 1948 at four locations with about 11,000 tons of hay in store in 1958.
- (c) When there is a poor hay crop due to drought, emergency fodder policies are introduced early in July, but usually remain in effect only until November 1st to encourage early action. They provide for shared costs with farmers on movement of haying equipment and for transportation of hay, and feed grain, if required. Costs of these programs vary with the extent of the problem. They have ranged from the 1937 problem of moving from 1,200 to 1,800 carloads of hay and feed grain per week costing \$10,880,000 for winter feed, to the 1949 program costing \$138,000 to the 1958-59 program of about \$375,000, shared with the Federal Government.
- (d) Assistance in development of community pastures, fodder production projects and irrigation.
- (e) Grasshopper control program. Cost varies according to infestation and type of program. In 1949, the province spent \$1,153,000 on grasshopper control, of which \$443,000 was recovered from sales to farmers. In recent programs net cost to the Government has been substantially reduced by sale of poison sprays, but heavy risks in stock piling are involved. About \$1,000,000 worth of chemicals have been bought and are in store for the 1959 campaign.
- (f) Activities of the Animal Industry Branch directed towards encouraging and promoting better and more profitable livestock production.
- (g) To give encouragement to various programs, the Saskatchewan Department of Agriculture offers to pay as Earned Assistance 50% of the cost of specific types of projects. Generally speaking, the assistance is available to municipalities, Conservation Areas and Co-operatives, and includes:
 - (i) Up to \$125.00 per dam or dugout north of the P.F.R.A. area. In 1958, assistance was paid on 201 dams and dugouts.
 - (ii) Fifty per cent of the expenditure made to control and eradicate Leafy Spurge, Russian Knapweed, Hoary Cress, Toadflax and Bladder Campion. Eradication of these weeds prevents the additional cultivation expense and pulverization of soil necessary in farming with them.
 - (iii) Half the cost of high and low pressure sprayer equipment with attachments for spraying shelterbelts, weeds, brush, livestock and plant insects. One hundred and sixty machines have been purchased to date.
 - (iv) The cost of grass seed for seeding roadsides and ditch banks to grass for weed and erosion control. In 1958, 901 miles of road and ditch were seeded to grass.

- (v) One-half the cost of filling of seed and seeding operations in filling and shaping gullies, and half the cost of seed for grassing waterways. Twenty-eight projects were completed in 1957-58.
- (vi) Organized groups of farmers receive assistance for erosion control, water control and soil improvement programs. In an area south-east of Prince Albert, five watershed co-operatives are active in areas occupied by 200 farmers and including 120,000 acres, with a membership of 75 farmers, and three more are organizing. In this area, subject to severe water erosion, about 72 miles of channel improvement and gully stabilization has been completed. Trash cover is now well maintained on 20,000 acres, strip cropping on 9,000 acres, and 1,575 acres have been seeded to clover and grass legume mixtures. Ten other small watershed areas are being studied for future development of this type.
- (vii) Assistance is paid for tree planting in field and roadside shelter-belts at \$16.00 per mile per year for three consecutive years. Payment in the second and third year requires weed control and gaps filled in. 941 miles of trees have been planted under this program. Half the cost of tree planting machines is offered to municipalities and 43 machines have been purchased.
- (viii) Fifty per cent of the cost of developing community pastures and forage projects (described in more detail below).

2. WATER DEVELOPMENT AND CONSERVATION

The Conservation and Development Branch was organized in 1949. Present staff include 25 Civil Engineers and 9 Agrologists. In addition to administration of surface water and allocation of water rights under The Water Rights Act, this Branch serves as the construction and building arm of the Department. The Branch administers legislation having to do with water allocation, irrigation, drainage and flood control and reclamation.

Under *The Water Power Act*, the property in and the right to use all provincial water powers are vested in the Crown. Sites may be disposed of by permit license or lease. The Act reserves to the Crown the right to determine the water which may be made available and utilized under an authorization for the development of water power.

Under *The Water Rights Act*, ownership of all surface water is vested in the Crown. This Act recognizes the competition for surface water for beneficial use and governs the allocation of such water.

The purpose of The Water Rights Act is to conserve for the common good a varying, limited and often unpredictable, water supply and to insure within the boundaries of scattered areas ranging from arid to semi-humid equal treatment to all according to the priorities and beneficial use of the water. In 1958, there were 1,500 inspections made of licensed projects for the purpose of assuring beneficial use and of assisting owners in their management and maintenance.

Under *The Water Users Act* and *The Irrigation Districts Act*, farmers who control irrigable land may organize for the construction, operation and maintenance of irrigation systems, land preparation and use of water. The Province builds the secondary works bringing water to each parcel of irrigable land, assists in some levelling and provides engineering services. The farmers build farm supply ditches, improve their land and are responsible, with some financial assistance, for maintenance.

The extent to which the main purposes of the water conservation Acts set out above have been achieved has been influenced by the drought and

depression of the 1930's. Recovery was not well advanced before the advent of World War II. Consequently, work under this legislation in question did not take on much significance until about 1948.

The primary and main purpose of irrigation development to date has been forage production. Since 1948, "larger" irrigation projects have been developed, totalling 15,000 acres of irrigable land. Secondary irrigation canals and field ditches totalling 260 miles in length have been constructed. The cost of this program has been about \$1,671,589, not including the cost of water storage developed by P.F.R.A.

The Conservation and Development Act enables legally organized groups of farmers, local governments or the Province to construct and operate any works necessary to conserve or develop land or water resources. Lands benefitted are liable to pay capital and maintenance costs.

The Department assists farmers through a Conservation and Development Area Authority by a fifty per cent contribution towards cost of constructing approved flood control works and pays up to 33% of the cost of operation and maintenance. In addition, when Area Authority debentures cannot be sold locally, the Government may purchase a percentage of them. Reconnaissance and preliminary engineering surveys are carried out free of charge.

The period between 1951 and 1957 was, on the average, well above normal in precipitation, resulting in surface flooding problems that damaged more developed farm land than any previous wet period. About 500 problem areas have been identified and over half of these investigated for feasibility of flood control measures. About 100 projects have been developed by building flood control works which include the construction of about 800 miles of ditches to convey surplus water to natural outlets. Total cost of this flood control program has been about five million dollars.

3. LAND RECLAMATION AND CROWN LANDS

In 1947, agricultural Crown lands were transferred to the Department of Agriculture from the Department of Natural Resources, and the Lands Branch, staff of which now includes 30 agrologists, was established.

In 1951, a Co-ordinating Committee was established between the Departments of Natural Resources and Agriculture. Functions of the Co-ordinating Committee are to examine agreed upon areas and recommend to the Ministers of the two Departments as to the best use of such areas. Other problems of joint concern such as fire control on the forest fringe are also discussed. Since its establishment, 66,390 acres have been withdrawn from forests for agricultural use and 353,300 acres have been transferred from agricultural lands and added to the Provincial Forest.

Since the 1930's, sale of provincial lands has not been widely practised with long-term leases being the usual form of disposition. Before a long-term lease is issued the lands are classified for use—cultivation, hay, grazing, reclamation, special rotation, etc. The lease provides for improvement measures according to the type of use involved. Lands are leased for grazing at a rental depending on the estimated carrying capacity and the price of beef. Cultivation leases call for from 1/16 to 1/9 share of crop, depending upon the soil rating. Allocations are made with the view to increasing the size of sub-economic farms.

Over nine million acres of provincial lands are administered. Grazing and hay leases and permits account for over 5½ millions acres and over 800,000 acres are included in cultivation leases and permits. At the present time about 87,000 acres are being held for use in pending land utilization projects.

A program aimed at increasing the productive potential of the province, assisting in the establishment of economic farm units and the establishment of veterans was begun in 1947.

There were 3,679 parcels of Crown land added to existing farms through 33-year leases and 2,110 new farms, of which 1,844 were veterans, were established. An initial acreage was broken on new farms and in 1952 a program was commenced under which lessees of Crown lands could receive cash payments for the cost of improving them. The program authorizes costs of from \$12.50 to \$30.00 per acre for a maximum of 40-50 acres per lease annually until 400 acres are under cultivation on the farm. Cash payments made in the 1957-58 fiscal year amounted to over \$700,000. About \$5,200,000 has been spent in cash payments to lessees for clearing and breaking Crown land, plus about \$1,800,000 worth of crop share rentals that the lessee retained as payment for clearing and breaking.

Under the Land Utilization Act, a Land Utilization Board acquires low productivity lands that have been abandoned or improperly used principally through assignment by municipalities of tax liens or tax sale certificates. The Board has acquired over one million acres of land since its organization, and over 625,000 acres have been included in community pastures.

Since 1950, the Board has received very few tax liens from municipalities. However, the acquisition of sub-marginal land is continuing under a purchase program with an annual expenditure varying from \$100-\$200,000.

Examples of the accomplishments of the Land Utilization Board and the C. & D. Branch are in the Meyronne, Mortlach, Regina Beach and Squaw Creek Projects. These areas of light sandy land were at one time fully settled and farmed. Abandonments occurred in the early twenties, followed by re-settlement and re-abandonment in the thirties. Title to about 40,000 acres was secured by the Board in these four projects. Over 17,000 acres were reclaimed and seeded to grass-alfalfa-mixtures. The areas are now under permanent use, some as community hay production projects and some as community grazing. In this reclamation work, a total of 49,000 acres have been rebroken and 67,000 acres seeded to perennial forage crops in the last ten years.

Problems of sub-marginal lands are by no means confined to the Southern part of the Province. In recent years, much of the work of the Board has been in Northern Saskatchewan and several settlements, established during the thirties, have been moved through land purchase or allocation of other Crown land and the area concerned devoted to pasture use or returned to forestry.

The activities of The Land Utilization Board provided P.F.R.A. with the lands required for a large program of community pasture construction during the late thirties. In recent years, this program has continued and Crown lands, L.U.B. lands, and purchased deeded lands have been made available for P.F.R.A., Provincial, Co-operative and Municipal pastures.

Municipalities and Co-operatives are offered financial assistance in pasture construction up to 50% of the cost of fencing, corrals, water development and land improvement. During the last ten years, the Department has paid out almost \$350,000 to Co-operative Grazing Associations.

The total pasture program and progress during the last ten years is as shown below:

Type of Pasture	1948		1958	
	No.	acres	No.	acres
P.F.R.A.	43	1,260,000	56	1,600,000
Co-operative	16	108,700	95	472,030
Provincial	3	153,500	20	354,000
Municipal	6	25,000	7	27,500
Totals	68	1,547,200	178	2,453,530

The 1958 acreage provides pasture at about 16 acres per cow, summer grazing, for over 150,000 cattle.

During the past three years, the Government has given special attention to pasture needs in Northern Saskatchewan. The lack of grazing facilities and large numbers of small farms, the high capital cost of clearing grazing lands and the need for more improved livestock are the basic reasons for this development. The Province will operate Northern pastures next summer at Erwood, Bertwell, Chagoness (R.M. 398), Donlands, Bapaume and Hatherleigh. Work is now in progress at Beacon Hill and three or four additional pastures will be prepared for development within the next two years. These all involve expensive land improvement in clearing, breaking and reseeding.

PROBLEM AREAS AND RECOMMENDATIONS

In 1950, the Agricultural Institute of Canada outlined a Suggested National Policy on Soil and Water Conservation and Land Use. This policy recommended a national policy of soil and water conservation and land use for Canada with a national council and a Dominion co-ordinator. It also recommended that custodianship of land and water resources available for agricultural purposes be the responsibility of the Department of Agriculture in the province concerned.

Saskatchewan is rather proud of the fact that these recommendations have been met insofar as the province is concerned. It is noteworthy that both Alberta and Manitoba are taking considerable steps in this direction.

It may be pointed out that in P.F.R.A. and M.M.R.A. organization now exists that would permit the implementing of these recommendations. One of the real needs of Canada at this time is a national policy in soil and water conservation and land use under which provinces could be assisted with problems peculiar to their agriculture.

1. *Water Conservation, Flood Control and Drainage.*

Under The Drainage Policy of the Provincial Government, Conservation Areas may be assisted to the extent of 50% of the cost of construction of flood control and drainage projects and 33½% of costs of maintenance and operation of such projects.

This policy was announced in 1957. While many Conservation Areas have organized and preliminary engineering plans have been drawn on about 60 projects, only five have proceeded with development. Flooding has generally been sporadic and, especially under present economic conditions farmers have been unwilling to accept the responsibility involved.

During settlement of the province, lands were settled and patents issued in areas where drainage was not satisfactory and also on areas that should have been reserved for water storage and flood control during wet cycles. The need of correctional work is indicated by the fact that during 1956 and 1957 the Department spent over \$2½ million constructing flood control projects in the settled area of the province.

Direct drainage or direct channelling of flood waters to correct flooding problems, while usually the cheapest and easiest is often not the best method of solving these problems. Construction of reservoirs, purchase of land subject to flooding and for reservoirs, land treatment and major channel improvement is desirable if the best use is to be made of our water and land resources. Alternative uses of land and water ranging from forage production to wild life and recreation should be a considered part of a conservation program. It is not satisfactory to permit farm families to be forced off land during wet

years, only to have it re-settled in the next dry period, nor is it in the long-term interests of the Province and Dominion to apply the direct solution of drainage and flood control canals that will carry large volumes of water by the shortest route into already overtaxed main channels and reservoirs.

Comprehensive integrated treatment on a watershed basis, however, is expensive and requires planning and time for implementation. It is considered that a national conservation policy that would make funds available to provinces for this type of development, on an earned assistance basis, is necessary if a program of this type is to be undertaken and maintained.

2. Water Requirements for Domestic and Stock Watering Purposes.

There are many areas in Saskatchewan where ground water supplies are unavailable. Lack of water supply has kept livestock off many farms. In dry years failure of water supplies in pastures is often an even more acute problem than lack of grass.

The farm project water development program of P.F.R.A. has been a basic part of a conservation program. Unfortunately, the northern area of the province, where livestock may be even a more important part of a farm conservation program than in the south, was excluded. During the last few years, the province has offered assistance on about the same basis as P.F.R.A. north of the boundary. In 1958, the first dry year since the policy was announced, and the first year when some lags in construction work left machinery available, 201 dugouts were built, indicating the need.

To date, P.F.R.A. has assisted in construction of 30,109 dugouts and 4,351 stock watering dams.

The recent increase in P.F.R.A. assistance was needed and is most welcome.

Research on methods of reducing seepage and evaporation from dugouts and small reservoirs is required. If a livestock business, depending on water from surface runoff, is to be reasonably secure, it is necessary that reserves be provided. The possibility of assistance in well drilling should be fully explored. The assistance now offered is most helpful and there is a real need for its expansion and extension over the whole province.

3. Municipal Water Supplies.

Much has been said and written about the changing rural scene in Saskatchewan. One of the important trends is the development of more larger centres with populations of from 500 upwards, where concentrations of service facilities serve a greater area.

As populations at such centres increase from the 150 to 300 level of 20 years ago, requirements of public health, the introduction of power and aspirations towards higher living standards result in the installation of water and sewage systems. One of the important effects of such installations is that per capita water requirements are increased at least three to four times.

There are in the province today many such communities, where normal growth will result in acute water shortages. Many others are facing serious difficulties if dry weather should persist for two or three years. The economy of these communities is dependent on the agricultural industry surrounding them. The installation of the water and sewage system often strains their financial abilities to the limit. With few exceptions they are not in a financial position to undertake the water development necessary to develop assured supplies.

A comprehensive reconnaissance survey of the problem has been undertaken by the Saskatchewan Research Council through three engineering firms. In the past, P.F.R.A. have constructed water storages for municipal use. This assistance has been most welcome and has helped many communities.

It is considered essential that some accepted policy be developed under which governments could assist with provision of water on these projects. Such a policy would fit in with and should be a part of the national policy recommended for Water Conservation, Flood Control and Drainage.

4. *Irrigation Projects.*

This is mentioned merely to point up what is considered to be an important principle in water conservation and development projects. Under P.C. 2298, and various individual agreements with provinces, the Federal Government has undertaken to construct water reservoirs and "main canals" and the province has undertaken to build secondary reservoirs and distribution systems, assist farmers in developing their lands, etc., as required to utilize the waters conserved.

In similar fashion, the Saskatchewan Government undertook to develop main outlets under the Emergency Flood Control Policy of 1956 with local government required to develop laterals, etc.

It is considered that this piecemeal approach is unsatisfactory in a water conservation and development program for the following reasons:

- (1) Uncertainties and differences of opinion regarding definition of works with the result being different interpretations and different application of policy on different projects.
- (2) It results in the proportion of costs assumed by the different levels of government varying widely between different projects.
- (3) It results in a piecemeal approach to the studies made with regard to the project with the agencies concerned often conducting separate studies from different points of view on the same project.
- (4) It may mean that as a result of local economic or financial problems, a project may never be fully developed.
- (5) Public pressures for a main work by a senior government may be such that a junior government, provincial or municipal, may be comparatively helpless in presenting the problems involved in its own participation.

For these reasons, it is considered that in a national policy, it is essential that the completed project should be the basis of study and of assistance.

5. *Removal of "Sub Marginal" Lands From Cultivation.*

There still are substantial acreages of land under cultivation where low yields or a combination of low yield and susceptibility to erosion would justify a "Sub Marginal" classification.

As noted above the Department is spending between \$100,000 and \$200,000 per year to buy such land, which is then regrassed and usually devoted to community pasture use.

This program could be expanded substantially if financial assistance were available.

6. *Tree Planting.*

One of the best conservation activities of the Federal Government has been maintenance of a supply of trees from the Indian Head and Sutherland Forestry Farms. This work was extended in 1937 to pilot field shelterbelt plantings at Conquest and Aneroid in Saskatchewan and at Lyleton in Manitoba.

The Saskatchewan Government has extended this program further by payment of assistance on shelterbelt plantings and planters as outlined elsewhere.

It is considered that tree planting should be given further encouragement in the settled or agricultural area of the province. The \$16.00 assistance per mile offered by the Provincial Government could well be matched by a Federal contribution and the term of years for which it is payable extended for the purpose of securing better maintenance.

Assistance towards solid plantings, particularly of evergreens on a community basis, that would contribute towards the cost of acquiring land and maintenance during establishment would be a conservation measure welcomed by many communities.

7. Community Pastures in the Wooded Area.

Most soils in the wooded area of the province urgently need a rotation system of farming in order to reduce soil erosion losses and improve fertility. However, economic pressures on the small farms typical of such areas are such that they are unable to devote arable cultivated land to pasture use, at least not enough to provide an economic livestock unit.

As distinct from the prairie areas, non-arable and non-cultivated land is covered with poplar growth and quite unsuitable for pasture in its native condition. The costs of clearing and land improvement are usually of the order of \$15-\$35 per acre and quite beyond the abilities of most of the farmers of the area to finance.

The Province has, within the last two years, embarked on a considerable program of pasture development in Northern Saskatchewan, involving an annual expenditure of from \$300,000 to \$500,000, in addition to Earned assistance, annually. Within a year, six Provincial Community pastures will be in operation in the wooded area of the province North of the P.F.R.A. boundary. It is considered that this will provide small farmers in the area surrounding these pastures with an opportunity of expanding their business through cattle and sheep production and give them a profitable use of hay grown in rotations on their arable land.

There is room and need for a very large expansion of this activity. By maintaining proper relationships and an integrated program such a development should contribute to game and wild life management and timber production as well as through cattle and sheep production to the economy of the small farms of the area. Federal assistance, either through extension of P.F.R.A.'s present pasture program or through Earned Assistance grants is needed.

8. Fodder Reserves and Forage Production.

Shortage of fodder in drought years, as well as shortage of water, has been a recurring problem to the livestock producer as well as to the Government in Saskatchewan. The drought of the early twenties, of 1937 and of 1949, all resulted in a greater or lesser marketing of breeding stock. This problem, because of the close association of livestock production and conservation and its special significance to the smaller farm is an important one.

Through the years the Department of Agriculture has tried to meet the problem in various ways. Assistance on transportation of hay in dry years, major emphasis and assistance in the seeding of forage crops, an intensive extension program on keeping feed reserves have all been used and are still being used but the major problem still remains.

Such measures as recognition of forage seeded acreage in grain delivery quotas, over-delivery privileges for purchase of forage seed have been helpful.

However, it appears that perhaps other approaches should be tried, such as financial assistance to encourage the devotion of arable land to forage production, and assistance towards the construction of hay shelters. Both measures could result in substantial expenditures and, in the former especially, in considerable administrative problems.

2nd Session, 24th Parliament, 1959

THE SENATE OF CANADA



PROCEEDINGS
OF THE
SPECIAL COMMITTEE OF THE SENATE
ON
LAND USE IN CANADA

No. 7

WEDNESDAY, MAY 20, 1959

THURSDAY, MAY 21, 1959

The Honourable Arthur M. Pearson, Chairman

WITNESSES:

Messrs. Adelard Bellemare, President, Omer Deslauriers, Vice-President, Raynald Ferron, General Manager and Dr. Roger Perrault, Economist, all of La Coopérative Fédérée de Québec. The Honourable L. C. Halmrast, Minister of Agriculture, Alberta.

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Pearson
Basha	Horner	Power
Bois	Inman	Smith (<i>Kamloops</i>)
Boucher	Leger	Stambaugh
Bradette	Leonard	Taylor (<i>Norfolk</i>)
Buchanan	MacDonald	Taylor (<i>Westmorland</i>)
Cameron	McDonald	Turgeon
Crerar	McGrand	Vaillancourt
Emerson	Methot	Wall
Gladstone	Molson	White—31
Golding		

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—

Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

WEDNESDAY, May 20, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 8.00 P.M.

Present: The Honourable Senators Pearson; *Chairman*; Basha, Bois, Golding, Inman, Leonard, MacDonald, McGrand, Taylor (*Westmorland*) and Vaillancourt. 10.

In attendance: The official reporters of the Senate.

The Committee proceeded to the further consideration of the Order of Reference of Tuesday, February 17, 1959.

The following witnesses from La Coopérative Fédérée de Québec, were heard:—

Messrs. Adélard Bellemare, President, Omer Deslauriers, Vice president, Raynald Ferron, General Manager and Dr. Roger Perreault, Economist.

At 9.45 P.M. the Committee adjourned until tomorrow, Thursday, May 21, 1959, at 10.30 A.M.

THURSDAY, May 21, 1959.

At 10.30 A.M. the Committee resumed.

Present: The Honourable Senators:—Pearson, *Chairman*; Barbour, Basha, Bois, Boucher, Bradette, Crerar, Higgins, Horner, Inman, MacDonald, McGrand, Stambaugh, Taylor (*Westmorland*), Turgeon and Wall. 16.

The Honourable L. C. Halmrast, Minister of Agriculture, Edmonton, Alberta, was heard.

At 12.30 P.M. the Committee adjourned until Wednesday, May 27, 1959, at 8.00 P.M.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

Ottawa, WEDNESDAY, May 20, 1959.

The Special Committee on land use in Canada met this day at 8 p.m.

Senator Arthur M. Pearson in the Chair.

The CHAIRMAN: Gentlemen, we have a quorum and so I will call the meeting to order. We have with us this evening a delegation from La Coopérative Fédérée de Québec. I would ask Mr. Raynald Ferron, the General Manager, to introduce the other members of the delegation.

Mr. FERRON: Mr. Chairman and honourable senators, before I give a resume of the brief that is being submitted by La Coopérative Fédérée de Québec may I take this opportunity to introduce to you the other members of our delegation? First we have Mr. Adélard Bellemare, President of La Coopérative Fédérée de Québec and of the Executive Committee. He is also President of his local co-op. Incidentally, he is a good farmer. Next we have Mr. Omer Deslauriers, Vice-President of the Cooperative, who is also Vice-President of the Executive. He too is President of his local co-op at Granby and is a good farmer. The third member is Dr. Roger Perreault, our economist. He is in charge of the Economics Division of La Coopérative Fédérée de Québec. Finally there is myself, Raynald Ferron, General Manager.

Honourable senators, since our President, Mr. Bellemare, is not familiar with the English language, with your permission he will ask the privilege to say a few words in French after which I shall proceed with the reading of the brief.

The CHAIRMAN: Thank you very much.

Mr. BELLEMARE:

MÉMOIRE DE LA COOPÉRATIVE FÉDÉRÉE DE QUÉBEC AU COMITÉ SPÉCIAL D'ENQUÊTE SUR L'UTILISATION DES TERRES AU CANADA¹

Introduction:

La Coopérative Fédérée de Québec (La Fédérée) exprime au Comité Spécial d'Enquête sur l'Utilisation des Terres au Canada ses plus vifs remerciements de l'occasion qu'il lui donne de présenter son point de vue sur la meilleure utilisation possible des terres dans la province de Québec. Elle tient pour assuré qu'en recueillant les opinions, points de vue et renseignements de divers groupements ou spécialistes intéressés au développement de l'agriculture et en suggérant les meilleurs moyens à prendre pour assurer une utilisation rationnelle des terres au pays, le Comité rendra des services inappréciables à l'agriculture de la province de Québec et à celle du Canada tout entier.

La Fédérée souscrit aux termes d'instruction dont est chargé le Comité Spécial d'Enquête, à savoir "L'utilisation des sols au Canada et les moyens à prendre pour assurer le meilleur emploi possible de nos terres au profit de

¹ Dans la préparation de ce mémoire, nous avons puisé aux rapports généraux des Commissions Tremblay, Héon, Gordon et aux travaux de la Fédération Canadienne de l'Agriculture et à ceux de la Corporation des Agronomes de la Province de Québec.

la nation et de l'économie canadiennes et, en particulier, en vue d'accroître tant notre production agricole que les revenus de ceux qui y participent". Elle reconnaît le bien fondé de politiques à long terme d'utilisation rationnelle des terres en vue d'accroître la productivité des sols. Cependant, on ne devra pas perdre de vue qu'il faudra, en même temps, rationaliser nos productions végétales et animales, c'est-à-dire, les rendre plus adéquates aux besoins des marchés national et international. La Fédération estime que pour réaliser le meilleur emploi possible des terres, il importe d'abord de relever la situation économique des cultivateurs de façon à rendre les fermes rentables.

Au cours de la présentation de notre mémoire, nous nous appuierons sur les prémisses suivantes:

1. Les richesses agricoles du Québec doivent être utilisées le plus efficacement possible, de façon à ce qu'elles fournissent leur apport maximum au revenu national et que les cultivateurs améliorent leur situation économique et reçoivent leur juste part du développement économique;

2. Les politiques spécifiques destinées à assurer le meilleur emploi possible de nos terres viendront s'ajouter à des politiques générales;

3. Le principal objet de ces politiques générales est de permettre aux bonnes fermes de demeurer rentables et de rendre rentables celles qui sont dans les conditions de le devenir. Les cultivateurs auront ainsi les outils économiques nécessaires pour appliquer les politiques spécifiques destinées à assurer un emploi rationnel du sol;

4. Les politiques générales et spécifiques devront permettre au plus grand nombre possible de cultivateurs de conserver la propriété et la maîtrise de leurs fermes;

5. Les politiques spécifiques devront tenir compte dans leur application des caractéristiques agraires et économiques distinctives des principales régions naturelles de la province;

6. Dans l'application des politiques d'utilisation des terres, on devra tenir compte des développements et des répercussions de l'intégration ainsi que des problèmes de marché.

I now call upon Mr. Ferron to present the brief.

MR. FERRON: Mr. Chairman and senators, I now read the text of the brief in English:

BRIEF OF LA COOPÉRATIVE FÉDÉRÉE DE QUÉBEC TO THE SPECIAL COMMITTEE ON LAND USE IN CANADA²

Introduction

La Coopérative Fédérée de Québec (the "Fédérée") wishes to thank the special Inquiry Committee on Land Use in Canada most sincerely for the opportunity which it is being afforded to present its view-point on the best possible utilization of lands in the Province of Quebec. It is convinced that by gathering opinions, view-points and information from various groups or specialists interested in fostering the development of agriculture and in suggesting the best means and ways to be taken to provide a rational utilization of lands in the country, the Committee will render a tremendous service to the agriculture of the Province of Quebec and to that of the whole of Canada.

The "Fédérée" endorses the goal which has been set for the Special Committee, that is to say: "... what should be done to ensure that our land resources are more effectively utilized for the benefit of the Canadian economy

² In the preparation of this brief, use has been made of information available in published reports of the Tremblay, Héon, and Gordon Commissions and in several briefs of the Canadian Federation of Agriculture and the "Corporation des Agronomes de la Province de Québec".

and the Canadian people and, in particular, to increase both agricultural production and the income of those engaged in it". It recognizes the necessity of long term policies for the rational utilization of lands with a view to increase soil productivity. However, in the meantime, sight must not be lost of the necessity of rationalizing our plant and animal productions, that is to say, of making them more adequate to the needs of the national and international markets. The "Fédération" believes that to obtain the best possible use of lands, it is essential that the economic situation of the farmers be improved so as to render farming profitable.

In the presentation of this brief, our discussion will be based on the following statements:

1. The agricultural resources of the Province of Quebec must be developed efficiently in order to contribute as much as possible to the national revenue and so that farmers can improve their lot and receive an equitable share of the economic development;

2. Specific policies designed to permit a better land use will complement general policies;

3. The chief objective of these general policies is to enable good farms to remain profitable and to make profitable those that are liable to become such. Farmers will thus have the necessary economic tools to apply the specific policies designed to ensure a rational use of the soil;

4. The general and specific policies should allow the greatest possible number of farmers to keep the control of their enterprises and remain owners of their farms;

5. The specific policies will have to take into account in their application the distinctive agronomic and economic characteristics of the various natural regions of the Province;

6. In the application of land use policies, the developments and repercussions of integration and the main marketing problems should be taken into consideration.

THE "FÉDÉRÉE"

This is the first time that the "Fédération" is given the privilege to appear before the Senate. We thought it useful to describe its structure, its activities and the role which it plays in agriculture since its operation is confined mostly to the Province of Quebec and consequently is not so well known to the representatives of the other Provinces.

1. Legislation: The "Fédération" is governed by a special Act of the Legislature of the Province of Quebec (Act 13, George V, Chapter 109). It is a society with capital shares; the responsibility of its shareholders, the local agricultural co-operatives, is limited to the amounts subscribed by each of them. The only shareholders of the "Fédération" are the agricultural co-operatives incorporated under the Act respecting Co-operative Agricultural Societies or the Act respecting Co-operative Syndicates.

2. Aim of the "Fédération" and of the local co-operatives: The local co-operatives, just as their Central the "Fédération", are service enterprises which are not aiming at obtaining profit maximization; it is rather concerned with providing farmers—who are at the same time owners and users of the Central—with the best means of marketing farm products at cost and improving farm practices³. In short, they are at the same time, economic and service enterprises.

³ The locals, just as their Central, operate according to the co-operative principles, viz.: free entry and exit (open door), only one vote per member, distribution of profits according to the amounts of business transacted, and limited interest rate on the amount of capital subscribed by the members.

3. The importance of the "Fédération" and of the agricultural co-operatives: The "Fédération" groups in a federation 380 agricultural co-operatives and 50,000 farmers scattered throughout the province; this represents approximately two-thirds of all the agricultural co-operatives and 40 per cent of the farmers of the Province of Quebec. The farmer-members of the "Fédération", in general, are recruited among the good farm operators.

The "Fédération's" total business for the year ending October 31st, 1958 reached \$95.1 million broken down about evenly among farm supplies; livestock and meat products; and dairy and other farm products. Out of total assets of \$16.4 million, the affiliated local co-operatives had before payment of patronage dividends and income tax, a net worth (capital and reserves) in the "Fédération" equivalent to \$4.2 million, or slightly more than 25 per cent of total assets. If to this sum are added the patronage dividends \$1.7 million loaned to the "Fédération" by the member-co-operatives, the net worth of the members in the "Fédération", amounts to approximately \$6.0 million, or 37 per cent of total assets. At the end of the fiscal year of 1958, fixed assets, less depreciation, amounted to \$2.7 million. During the period 1951-57, the "Fédération" has paid in patronage dividends to the affiliated co-operatives almost \$3.3 million derived from its operating surplus with the locals.

The development of the "Fédération" rests on a strong agricultural co-operative movement. Thus, on March 31st 1958, 513 agricultural co-operatives including four co-operatives operating on a provincial basis, had reported to the Provincial Department of Agriculture. They grouped 69,000 farmers scattered throughout the Province. Their total business reached \$150.7 million of which 40 per cent was in farm supplies and 60 per cent in farm produce.

The processing of dairy products plays an important role in the agricultural co-operative movement of this Province. There were in 1957, two hundred and ninety eight (298) co-operative dairy establishments. Furthermore, a good number of co-operatives manufactured and/or distributed dairy feeds without, however, owning a dairy product plant.

Total assets of the agricultural co-operatives of the Province of Quebec totalled \$47.9 million of which fixed assets less depreciation represented \$19.8 million. The net worth of the members in their local co-operatives was \$25.2 million, or 50.6 per cent of total assets. When credited with the patronage dividends amounting to \$3.1 million, the total net worth of the farmers reaches \$28.3 million or 59.1 per cent of total assets.

It is estimated that the agricultural co-operatives take from one-quarter to one-third of the total marketing of livestock in this Province. Furthermore, the greatest proportion of it, is processed in the co-operative abattoirs. For dairy products, the co-operatives' share would run from 30 to 35 per cent of the total; for butter only, they handle almost 50 per cent of the production. In poultry products, the percentage would be in the vicinity of 20 per cent. In the case of fruits and vegetables, they only deal with the marketing of strawberries, potatoes, apples (about 25 per cent) and canned goods (about ten per cent).

4. Marketing system of the "Fédération": To market these farm products and provide farmers with the needed farm supplies, the "Fédération" owns a vast marketing distribution network. It is our conviction that any sizeable program of improvement of land resources and, consequently, of increased production must be solidly backed by a well integrated marketing and distribution system. The co-operative system will offer better possibilities to fill the needs of the farmers as well as those of the consumers because it is already owned, administrated and controlled by the producers who are first of all interested in service.

To serve its members, the "Fédération" owns a dozen branches located at strategic points throughout the Province. They comprise two abattoirs, one meat packing plant (it is about the only Central co-operative in Canada to own abattoirs), one poultry killing plant, four feed mills, one butter and cheese box factory, dry and cold storage plants, etc. It operates a livestock marketing agency on public markets and holds a public grain elevator licence in Montreal.

The "Fédération" receives in consignment all the agricultural products from its members, which it grades, processes, packages, stores and sells. The products are sold according to official grading standards which means according to their quality. The "Fédération" also procures farm supplies for the above-mentioned members, with particular care given to quality and suitability to the actual needs of the farmer.

5. Improvement of farm practices: The main activities of the "Fédération" consist mostly in the marketing and distribution of farm produce and farm supplies. Owing to the fact that it constitutes a link between producers and consumers, the Central as well as the local co-operative, are the extension of the farm itself. Therefore, it is considerably interested in the improvement of farm practices. Its influence is felt in different ways.

By supplying farmers with farm supplies adapted to their needs and by encouraging grading of farm products—a domain in which the "Fédération" and its affiliated have always been in the foreground in this Province—the "Fédération" contributes to the improvement of their produce and meets the requirements of the consumers. By its numerous contacts with farmers through its Board of Directors, its Executive, its service managers and its field representatives, and by its knowledge of the markets, the "Fédération" helps a great deal to the betterment of agricultural produce and to the orientation of agriculture according to the needs of the markets.

This role of improving agricultural practices is also played by the "Fédération" in a more direct fashion. A few examples amongst many others will serve to illustrate this point. For some time already, the "Fédération" has inaugurated at its packing house in Montreal a series of practical demonstrations designed to enable farmers to learn more about the grading system for hogs, beef and lamb, and the criteria used to judge quality of meat cattle paid on live or dead weight. At the same time, field representatives teach farmers the best husbandry methods so that they can market quality livestock of proper weight and finish.

Following a series of lectures on weeds given jointly by the "Fédération" and the Provincial Department of Agriculture at the beginning of 1956 and repeated at the end of the same year, a good number of co-operatives have begun spraying on contract. In 1956, fifty six (56) co-operatives were equipped for chemical weeding. Ten thousand acres only were sprayed in the Province in 1955, whereas in 1958, the total acreage reached 60 to 70,000 acres, of which 45 to 50,000 acres are to be credited to the intense work of the co-operatives.

To be in a better position to serve the farmers, the efforts of the "Fédération" are now directed towards integration plans which take into account, not only the efficient marketing of farm produce, but also the improvement of agricultural practices, problems of feeding, of financing, etc. In so doing, the "Fédération" will become more and more integrated to the rational development of Quebec farms and will contribute to the welfare of the farmers.

6. Other services provided by the "Fédération": By its social policies, the "Fédération" contributes to the well-being and security of its member-farmers and the employees of the Central and affiliated co-operatives. It has a group life

insurance plan for the farmers and their family. Besides, it has group life, health insurance, and pension plans for the employees. It lends a definite support to the co-operative movement in this Province through its field representatives, its active participation within the Council of Co-operation and in various other ways. Finally, it contributes to charities and brings financial aid to university and rural learning institutions. The "Fédérée" also spreads its action on a national as well as an international scale. Due to its marketing system, it facilitates the working of various agricultural policies. It also works in close collaboration with co-operative and professional organizations, farmer's groups and others in Canada and in the United States. It markets parts of its products in other provinces as well as on the international markets.

By its action, the "Fédérée" contributes to increase the net income of the farmers. By reason of its importance in the Quebec agriculture, of its integrated system of marketing and of its constant endeavour to improve farm products, its directives are in line with the over-all goals of the agricultural economy.

CHARACTERISTICS, EVOLUTION AND PRESENT STATE OF THE QUEBEC AGRICULTURE

1. Characteristics: Nearly 95 per cent of the Quebec farmers own the farm which they operate. About seven farms out of ten among the 118,000 farmers of the Province of Quebec are commercial farms, that is farms which according to the standards established in the 1956 agricultural census can produce a cash income of \$1200. or more.

Quebec farmers derive about 85 per cent of their farm cash income from the sale of livestock and livestock products. The dairy industry (meat by-products excluded) represents by itself about 40 per cent of the total cash income derived from the sale of agricultural products in the Province of Quebec. Hence the importance of grass farming: hay and pastures represent at least 70 per cent of improved land and, oats and hay, about 86 per cent of the area under crops.

Regional developments are uneven due to climate, soil fertility and nearness to markets, and so forth. Of all the regions of the Province, the most favoured is that of the St. Lawrence lowlands. This region forms a more or less regular triangle having Hull, Lake Champlain and Quebec City at its three angles. From a soil fertility standpoint, the Bois Francs region could also be included among the good farm land of the Province. The St. Lawrence lowlands region includes 35 per cent of the farms and represents at least 55 per cent of the farm cash income of the farmers of the Province.

It should be mentioned that or most of the agricultural products, the Quebec production is not sufficient to fill the needs of the population of the Province. Generally speaking, it might be said that only dairy products show surpluses and from time to time some other products of lesser importance may have excedents.

2. Evolution: During the period 1949-58, the Quebec agriculture has undergone deep-rooted changes. The number of farms has decreased from 138,000 to 118,000, or a decrease of 20,000 farms (an idea of the importance of this change is evident when it is mentioned that there are about 20,000 farms in Nova Scotia). The decrease in the number of farms is more prominent in the regions surrounding the St. Lawrence lowlands and near large cities. The population trend to more outside of agriculture has been more evident in the less favoured economic regions.

Production per farm operator has more than doubled since 1935-39. Compared to the period 1935-39, the volume of production has increased by at least 20 per cent during the period 1949-58.

A considerable increase in the number of commercial farms (self-sustaining units) is evident; thus, in 1956, there were 88,200 commercial farms out of a total of 122,617 farms in the Province. Farms are becoming rapidly mechanized; 60,000 tractors are to be found in the Province of Quebec.

On a product basis, poultry farming has shown the largest expansion. Before 1949, it accounted for less than ten per cent of the farm cash income of the Province. Presently, it contributes at least 15 per cent of this income, or almost as much as hog raising for the years when hog raising is decreasing.

Generally speaking, agriculture tends to specialize and to regionalize. The number of farms decreases, hog, dairy cows and poultry raisers also decrease, specialized producers in certain farm productions are less numerous. However, the volume of production is on the increase.

Let us take the case of the hog industry. For a long time, hog farming was considered as an auxiliary or complementary activity for farmers interested mostly in dairy. To-day, certain farms are organized for the production of piglets up to weaning; others specialize in finishing of pigs for the market. However, a small proportion of hog farmers continue to produce piglets and bring them to the marketing stage, but with a larger number of sows from which they obtain several litters yearly⁴. Eight hundred (800) farms of one hundred (100) sows each yielding two litters of eight piglets yearly would be sufficient to provide all the hogs needed in the Province.

3. Position of agriculture:—Despite great technological strides, the economic position of the Quebec farmers has undergone an obvious decline during this period. In contrast with 1951, the real net income per farm (1949 = 100) that is, the net income adjusted by the farm family living cost, has decreased nearly 25 per cent (see table 1). The real net income per farm in 1957 was still much inferior to that of 1949. On the other hand, the purchasing power (real salaries and wages) of workers in Montreal has increased by almost 30 per cent in comparison with 1949 (see table 2).

The total farm cash income, in the Province of Quebec, has not varied much since 1951. The volume of agricultural production has expanded considerably. Generally speaking, the prices of agricultural produce have decreased while farm cost prices have gone up by 25 per cent in comparison with 1949 (see table 3). Consequently, the purchasing power of agricultural produce has greatly depreciated; it was reduced by almost 20 per cent during the period 1949-57 (see table 3).

Faced with such a disparity between farm produce prices and cost prices, and handicapped with poor soils, low capitalization, lack of credit and many other reasons, numerous farmers have been unable to carry out the necessary readjustments and have been forced to quit farming. Thus, between 1951 and 1956, a large proportion of the 12,000 farms which disappeared were abandoned or sold⁵. There are reasons to believe that the economically weak farms were affected the most. For instance, in 1956, twenty eight per cent of the Quebec farms were non-commercial, that is, farms where the cash income was inferior to \$1,200 whereas in 1950, the proportion reached 47 per

⁴ Adrien Morin, *Plus de porcs, moins de fermes, l'Éleveur*, Granby, septembre 1958, p. 14.

⁵ Out of 12,000 farms which have vanished in the Province between 1951 and 1956, 3,000 have disappeared in the lowlands regions alone. Many of these were among the most productive. It seems that in many cases, they have ceased their operations not due to the price structure and unfavourable cost, but due to a more profitable utilization of the land, such as industrial, residential and other projects, or because the owners were expecting a favourable selling price.

cent. The years 1950 and 1956 may be compared with respect to the volume of agricultural production and prices of farm produce, but not with regard to cost prices⁶.

Another severe deficiency of the Quebec agriculture is the scarcity of farm labour. In 1951, there were 195,410 agricultural workers, whereas in 1956, only 171,375 were to be found, a decrease of 24,000 or more than 12 per cent. Farm workers now only represent about ten per cent of non-farm labour. The farm wage index in Eastern Canada has increased during the period 1951-58 from 412.4 (1935-39 = 100) to 497.8. Despite this substantial increase in the wages of farm labour, the cities are offering far more attractive opportunities. On the other hand, a great number of farms have neither the economic capacity to pay higher wages, nor the necessary credit facilities to substitute agricultural machinery for the scarce farm labour.

In short, Quebec farmers do face an ever increasing cost of living while the purchasing power of their produce is falling. To meet this situation, producers on commercial farms must increase their production due to the narrowing of margins of operation. To obtain a sound increase in production, they need greater credit facilities with more attractive terms.

UNFAVOURABLE STATE OF AGRICULTURE IN THE CANADIAN ECONOMY

On the whole, Canada has known, since the war, an era of great economic prosperity. The prosperity has been maintained almost without interruption during the past sixteen years. All economic sectors of the nation, save agriculture and a few other primary industries, have largely benefited from the economic development of the country. For instance, in 1956, farm net income represented only six per cent of national net income (the agricultural population at that moment represented 17 per cent of the total Canadian population), whereas non agricultural labour estimated at 4.8 million people was getting \$14.3 billion of the \$23.0 billion of the net national income, or 62.2 per cent.

One of the principal factors responsible for this prosperity was the investment of foreign capital in this country. However, foreign capital investments were directed towards agriculture only in a very small proportion. In varying degrees, the same observation can be made with respect to domestic investments.

In 1956, out of capital expenditures of \$7.9 billion in this country, only \$495 million were devoted to agriculture and fisheries, or less than seven per cent⁷. Except for a few years when credit restriction measures were applied, corporations, industrials, and consumers in cities (consumer credit, mortgage), etc. had access to large amounts of credit, whereas short-term credit available to farmers, from government or other sources, was insufficient to permit the necessary production readjustment or secure operating capital.

The country has witnessed, during the years 1957 and 1958, a period of economic recession. During these years, the economic situation of farm workers, in relation to that of non-farm workers, has not improved. Thus, in 1957, the net farm income of the Canadian farmers was one of the lowest registered since 1946. Even though some improvement has been noticed in 1958, the net farm income remains definitely insufficient to meet the capital needs and the cost of living. Agriculture continues to suffer from a shortage

⁶ By referring to tables 4 and 5 in the appendix, it will be seen that the majority of the non commercial farms in 1950 were very poor and non sustaining.

⁷ Private and public investment in Canada, Outlook 1957, Department of Trade and Commerce, Ottawa, 1957.

of capital. Thus in 1958, out of total capital expenditures of \$8.4 billion in this country, only \$469 million were affected to agriculture and fisheries, or less than six per cent.

In view of this unfavourable situation of agriculture in the Canadian economy, we believe that, for specific measures towards a rational use of farm lands to be fruit-bearing, they must be preceded by immediate general policies which will render farms self-supporting and more especially those which from an economic standpoint should become such. In the furthering of general policies, it will be necessary to attempt to bring agricultural productions in line with the market needs.

AGRICULTURAL DOMAIN

1. Extent of the agricultural domain: The agricultural domain of the Province of Quebec is not known exactly. The work of inventory and classification by the Provincial Colonization Department is being continued, but much remains to be done. A conservative and realistic estimate would limit lands suitable for farming to 23 to 25 million acres out of a total area of 335 million acres for the Province.

2. Agricultural land use: The farm area amounts to 15.9 million acres. A little more than half of this area, 8.7 million acres, is improved land. Of this latter figure, 5.5 million acres are under crops—of which 85.5 per cent in cultivated hay and oats—and 2.6 million acres in pastures. Quebec agriculture is predominantly based on grass farming. Pastures and hay crops represent together 71 per cent of the improved land.

3. Possibilities of expansion: The possibilities of expansion of land resources are limited. In 1946, for the purpose of setting-up policies of colonization, it was estimated that the area susceptible of colonization was of the order of 7.5 million acres⁸. In view of the upsurge of industrialization and the slow-down in colonization, it is more likely to expect a decrease in the cultivated acreage and a higher yield per agricultural worker, per animal unit, and per unit of surface, rather than an increase in total farm area.

4. Natural regions: The Province of Quebec is divided into three main physiographical regions: the Laurentian Shield, the St. Lawrence Lowlands, and the Appalachian Highlands. The St. Lawrence Lowlands occupy the territory located in a triangle having Lake Champlain, Hull and Quebec at its angles. The Laurentian Shield and the Appalachian Highlands are located north and south respectively of the St. Lawrence Lowlands.

The St. Lawrence Lowlands region is by far the most favored in all respects: climate, soils, topography, intensive farming (dairy, poultry and truck gardening), nearness to markets, etc. The Appalachian region is generally hilly and farming is mostly confined to the Eastern Townships and the "Bois Francs". On the Laurentian Shield, farming is restricted to the Southern Valleys, except for the clay belts of Lake St. John and Abitibi. Soil resources in these latter two regions become generally poorer as one moves away from the St. Lawrence Lowlands, and they are suitable mostly for extensive farming.

5. Classification of natural regions according to fertility and income potential: For all practical purposes, it is convenient to redivide the natural regions of the Province in the following manner:

(a) The St. Lawrence Lowlands, and the "Bois Francs" region;

⁸G. P. Boucher, *Land Settlement Possibilities in Eastern Canada*, Economic Annalist, May 1946, p. 30.

- (b) The Intermediate region, a region situated north and south of the St. Lawrence Lowlands and which comprises the subregion of Ottawa (Hull), a large part of the Eastern Townships, the Lower St. Lawrence, the Lowlands of Lake St. John area and parts of the Abitibi; and,
- (c) The Frontier region which comprises the rest of the Province and more particularly the Gaspé Peninsula, the Saguenay, and parts of the Abitibi.

This classification presents a truer picture of these regions in connection with fertility, nearness to markets and income earning potential.

INCOME POTENTIAL OF FARMS AND THEIR NEEDS FOR IMPROVEMENT ACCORDING TO REGIONS

Neither time, nor recent data permit us to make a detailed study of the income potential of farms according to the classification of the above-mentioned regions. It is also impossible, for lack of data on economic classification of farms and sufficient number of systematised farm records, to determine the respective proportions of submarginal, marginal, and other farms. Further work would still be necessary to define the main concepts relating to marginal and submarginal forms. We will at most present some general facts based on the 1951 census and apply them to the classification of the regions, while bearing constantly in mind that important changes have occurred since in Quebec agriculture.

1. Regional contributions to Quebec agriculture: The farms of the St. Lawrence Lowlands, comprising 35 per cent of the total number of farms in the Province, are responsible in all probability for 55 per cent of the total farm cash income. The farm cash income from farms located in the Intermediate region would come near the average for the Province. This would mean on the other hand that farms from the Frontier region would bring a very small contribution to the total farm cash income. A glance at tables 4, 5 and 6 of the appendix will show that, in general, numerous farms located in this region can hardly survive. Recent data on expenses and income per farm according to regions might bring some enlightenment, but this information is not available.

2. General observations: On the basis of the economic classification of farms as given in the 1951 census, the following observations could be made:

- (a) The low-income farms (small scale farms) and part-time farms are generally located in frontier regions where disturbed physiography prevails, on Laurentian and Appalachian podzols or in clay belts of the West and North west; so this explains why most of these farms' cash income vary from \$250 to \$1,199. But some of these will also be found in counties where land clearing took place long ago;
- (b) Farms in the next economic class (\$1,200 to \$2,499) are rather situated in an intermediate zone between the metropolitan and frontier regions. But as enterprises in this class come closer to the provincial average, it is quite normal to find an important percentage of them in most counties, save Abitibi, Bonaventure and Gaspé;
- (c) Farms with a farm cash income exceeding \$2,500 are found mostly in the triangle between Quebec, Hull and Lake Champlain, on the St. Lawrence Lowlands.

Farms which have the highest revenue are also found, with few exceptions, (highly specialized farms) in the St. Lawrence plains.

We are thus facing biological and economic equilibria on which our agriculture rests. The variable but evident influence of physical and economic factors is very apparent.

3. Needs for improvement according to regions: The needs for improvement of farms vary according to the various natural regions of the Province outlined above. Only the essential needs are mentioned here in order of priority. Extended research will be necessary to determine the extent of these needs and the steps to be taken to satisfy them.

- (a) The St. Lawrence Lowlands: The primary conditioning factor in this region seems to be a plan for rational water utilization. In this region, the production limiting factor is the excess or scarcity of water. Thus, it is not uncommon for some lowlands to dry too quickly during the Summer. For increased production, these lands would require a better control of the sub-soil water level. The same is true of the black soils which, for lack of adequate control of the sub-soil water level, become oxydized too rapidly. Many counties of the Province of Quebec in the vicinity of Lake St. Pierre would benefit greatly from measures designed to permit reclamation of swampy land.

Irrigation is just starting in the Province of Quebec. Thus, in 1950, there were only 388 acres under irrigation and 27 farms had parts under irrigation. Irrigation has been pushed actively since.

In 1956, out of a total of six thousand acres in tobacco in the Province, three thousand could be irrigated. Also some 300 acres of fruits and vegetables were irrigated. It is expected that within the next few years, all the acreage devoted to tobacco will be capable of being irrigated. The necessity of irrigation is further enhanced by the fact that the St. Lawrence Lowlands region comprises a high percentage of the area under special crops in the Province.

Secondly, the St. Lawrence Lowlands would benefit greatly from better fertilization. For instance, a representative sampling showed that out of ten counties in this region chemical fertilizers used amounted to only 1.6 to 1.7 ton per farm during the year ending June 30th 1957⁹. Thirdly, mention should be made for a greater utilization of improved and adapted grasses for pastures and meadows;

- (b) The Intermediate region: Most of the farms of the Intermediate region are not sufficiently intensive because means of production are lacking; restricted cultivated area (this is probably the greatest point to be improved), defective drainage, acid soils, reduced fertility, low yields, insufficient or uneconomic capitalization, rudimentary or obsolete equipment, and low farm labour productivity.

Most of the need for improvement pertaining to the St. Lawrence Lowlands also apply here, but in variable degrees. It seems, however, that what these farms need most are facilities of orientation in production, a wider and better use of fertilizers, and availability of credit, so that they can become more profitable.

- (c) The Frontier region: From an agricultural view-point, the Frontier region is one of great poverty. The population devoted to farming in many cases obtains its lean revenue, not only from agriculture but also from other primary industries, such as forestry, fisheries, etc.,

⁹ This sampling was composed of the following counties: Beauharnois, Chambly, Chateauguy, Laprairie, Richelieu, St. Hyacinthe, Soulanges, Vaudreuil, Vercheres and Yamaska. Based on information from the Dominion Bureau of Statistics.

and other non-agricultural occupations. Due to the very low revenue of the farms in the Intermediate and Frontier regions, they often have to be abandoned.

In 1950, there were 8,175 non resident farms in the Province and a good number of them were abandoned. There is a strong evidence that most of them were to be found in these regions. Thus, a brief survey on the reasons for the sale and abandonment of farms in Dorchester County in 1956 has shown that:¹⁰

- (i) In fifteen parishes located in the Southern part of the county (without doubt to be considered as Frontier region), 253 farms had been abandoned during the last ten years;
- (ii) In many cases, young farmers sell or abandon the farm which they have inherited or bought. Some farms have been abandoned by the generation of people who has cleared them. In settlement parishes, the Government takes back abandoned lots once they have been pilfered".

To rehabilitate this region, the first step necessary is the setting up of a Board of inquiry consisting of successful farmers, agronomes, forestry engineers, economists, sociologists, etc . . . with the duty to inquire into the identification, localization, classification and selection of farms, so as to affect them to a rational utilization while bearing in mind the various non-farm income sources of their occupants. The lands would have to be classified as to their potential utilization, that is to say:

- a) Lands unsuitable for farming which cannot be economically transformed into woodlots. These lands in the Gaspé, Laurentian and Appalachian regions, have been found so unsuitable to farming that they had to be abandoned. These lands are so completely ruined that reforestation would be uneconomical.
- (b) Lands which should be devoted to general conservation purposes. These cleared lands, definitely unsuitable to farming, could be reforested advantageously by natural growth or through artificial means and form an essential part of a conservation program.
- (c) Cleared lands unsuitable for agriculture and which could be reforested advantageously;
- (d) Lands which would be suitable for a mixed agricultural and forestry exploitation;
- (e) Lands which could be developed alongside with the fishing industry;
- (f) Lands which should be kept under cultivation. The development of these lands should be backed by a training program for the farmers;
- (g) Lands presently covered with forests which would be suitable for agriculture;
- (h) Lands temporarily or definitely inhabited or abandoned which could be made profitable.

GENERAL POLICIES

It has been shown above that the purchasing power of farmers in the Province of Quebec has undergone a marked decrease since 1951. It has also been noted that a great number of farms situated outside of the St. Lawrence Lowlands and of the region of the Bois Francs do not constitute good economic

¹⁰ Survey conducted by Mr. Maurice Dirren, Agronome for the County of Dorchester.

units. This is, the reason why we believe, that to be efficient, specific policies designed to insure a rational use of the soils must first be backed by general policies.

These basic policies should tend towards the following goals:

- (1) Raise the standards of living on the farms;
- (2) Facilitate the needed adjustments in production and marketing of agricultural produce so as to obtain a better balance between agricultural production and the market needs;
- (3) Contribute to the maintenance and improvement of the family farm.

In view of the importance of the concept of the family farm, it is felt necessary to outline briefly its principal characteristics. Agricultural economists, at a workshop held last June in Quebec City and sponsored by the Canadian Agricultural Economics Society, have defined them as follows:

"(a) The family is involved in a predominant role in

- management
- capital risk
- labour

(b) Tenure is secure;

(c) Residence may be off or on the farm.

... Net returns must be sufficient to provide the family with a standard of living accepted or recognized by the majority of people living in the surrounding rural and urban area. Relative to the work of the group this concept applied the necessity for:

(a) rational management

(b) sufficient productive resources."

While admitting on the whole, the distinctions outlined above, we specify that, as far as Quebec is concerned, the family farm consists of a farm where the head of the family is at the same time the owner and the manager and in which, together with the other members of his family, he has the upper hand on the administrative decisions necessary to its good functioning.

1. *The integration problems.* We have thought it necessary to bring to the attention of the Committee, the problems of integration in agriculture. Any program designed to insure a rational use of the soils, will have to take into account, the repercussions of integration on the farm economy. The rational use of lands is intimately related to the land tenure system.

Under the present circumstances, integration, such as practised by non-agricultural enterprises, exerts a marked influence on the farm ownership system. It can be anticipated that, if integration is not carried out to the benefit of the farmers, such marginal farms which might have become stable economic units will never become such. Extended programs of land use take time to plan and develop. It is possible then, that if developments of integration are not closely followed, the programs will become obsolete by the time they are realized. We will come later on to these questions. Owing to the importance of the subject matter, we believe it necessary to recall our view-points on integration.

2. *Developments of integration:* The formula of integration is not an innovation in agriculture. Co-operatives, in carrying further the activities of the farms, have always been concerned with the implementation of integration programs. As another example, it is being applied, in Canadian and American canneries for quite some time now. In this sector, it is evidenced by the application of production contracts between farmers and canners or again by the

operation of truck gardening farms owned and managed by companies. In these last few years, it has taken a considerable importance in the broiler and turkey industries. It has also gained some headway in hog raising although at a lower rate. It is just beginning in eggs and in some other livestock productions. Finally, it is spreading to the dairy products industry where it takes the form of numerous mergers realized by large enterprises.

It has progressed most in the broiler industry however. In the United States and in Ontario, the broiler industry is integrated to the extent of 90 per cent; the greater proportion of broilers is integrated by companies, mostly by feed mills. In the United States, incidentally, the progress of integration in this industry has taken such an importance that a Senate Committee was asked to verify if it was taking a monopolistic trend. In the Province of Quebec, we do not have exact figures available of the extent of integration in the broiler industry, but we do know that this industry has been largely integrated.

It is easy to understand the rapid developments of integration in this industry. In its present form, it has hardly been in existence for more than five years. In a great number of farms, the broiler production has been superimposed on the existing activities in the various animal productions. In many cases, new farmers have entered into this industry. It is easy to see that the lack of established production patterns and marketing system has accelerated the integration of this product.

The biological cycle of the broilers is of short duration, about ten weeks and consequently, this product is ideally suited for mass production, processing and distribution techniques. Feed dealers find in broilers an excellent outlet, due to the fact that feeding cost represents more than 50 per cent of farm operating costs. On the other hand, sizeable gains have been recorded in the feed conversion into pounds of meat. Due to the risks of mass production, a number of poultry producers have felt the necessity of obtaining proper technical advice on a permanent basis and, sufficient credit funds to carry out this production. Finally, consumers have found in broilers an inexpensive product which could easily be substituted to other meats when the latter are too costly, and besides this production is offered regularly on the market in standard qualities. Briefly, broiler industry is easily adapted to integration.

Integration in the hog industry is of more recent date than that of broiler and it is growing more slowly due to the following factors: a much longer biological cycle, difficulties of establishing hatcheries, considerable risks and higher capital investments involved. However, the hog industry is liable to be further integrated on account of several factors, among which stand out the specialization of productions and the rapid technical progress in the sciences of nutrition and management.

It is estimated that a small proportion of hogs are integrated in the United States. However, integration of hogs is growing fast in the Southern States and in the Corn Belt area. In Ontario, at least 25 per cent of the hogs are integrated, mostly by feed mills. In Quebec, integration has made some headway mostly in the counties South of Montreal, such as Bagot, Nicolet, Rouville and Shefford.

It is clear from this brief outline that integration is being applied more and more extensively in agriculture. But what exactly is integration, co-ordination, or concentration as it is sometimes called?

It is the linking or tying up of two or more steps in production, processing or marketing under a unique control, that is under the same management. In this case, it is called vertical because it ties under the same control operations of different nature whether it is in production, in marketing, or in both at the same time. In can take effect in the form of ownership or of contracts. In the first case, distributing companies of petroleum products which owned refineries, would integrate vertically their operations. In the second case, a feed mill

which would by contract supply its customers with feeds and piglets and have the market hogs slaughtered in an abattoir belonging to another company, would carry out vertical integration.

By considering the various steps of the economic activities from the procurement of the needed raw materials for the manufacture of a product, until the final stage or consumption—let us say, as a concrete example, from the sale of feeds to farmers until the purchase of hams by the consumers—we can conceive a great possible number of applications of integration. In practice, however, one can say that, in the cases which are of interest to us, the principal participants to integration are the co-operative or non-co-operative feed mills and abattoirs, the supermarkets and the farmers.

There is horizontal integration when the control is exerted on operations of the same nature. The most common form of horizontal integration is straight ownership. Thus, the companies manufacturing dairy products can extend their control by becoming owners of smaller dairy establishments. A company which would establish new supermarkets would also carry out horizontal integration. In practice, the economic expansion of enterprises makes use of both types of integration.

It would be far too long to analyse here the chief causes responsible for the development of integration. Let us say, in short, that certain factors have contributed to the progress of this formula, namely, automation in methods of production and distribution, technical and economic changes in the agricultural industry, the considerable investment and technical advice needed by farmers, the increasing importance of a sound and progressive management at the farm level to meet competition and narrowing of the net margin of operations, the trend towards improved methods of communication, be it in transportation, television, and so forth, developments which have contributed without doubt to the "Rurbanization" of the farming class¹¹.

Integration, practised by large concerns and that practised by co-operatives vary according to motives, means and results. The large enterprises look at integration as a means to increase their economic strength, their economic concentration. If they have come to integration, it is because they believe that the investments in production and marketing of agricultural produce would yield more than in other enterprises. Some have seen in it an excellent means of utilizing excess production capacity and, consequently, or reducing their operating costs. Others have found in it a means of obtaining regularly for their customers food of standard quality in sufficient quantity.

When discussing integration, the idea of efficiency is often associated with it. It would be a tremendous undertaking to try to outline what this word means whether it is applied to some particular aspect of production, of livestock feeding, or marketing, or whether it is applied to the whole farm structure and the farm economy in general. Furthermore, it can be said that once the technical problems in agriculture have been settled, the whole problem is not solved since recent technological developments in agriculture have often been responsible for the overproduction of certain agricultural products.

Up to now, large enterprises when dealing with integration, have emphasized on efficiency in their public relations work. It is permissible to ask however, if the fact, that their methods lead to overproduction of certain products, constitutes a real proof of efficiency. There is also a doubt as to whether or not farmers and consumers will really benefit from possible gains imputable to efficiency at the levels of processing and distribution. It is also difficult to admit that farmers, in integrating their means of production and

¹¹ This paragraph is based on the following article: Earl L. Butz, the Social and Political Implications of Integration, National Institute of Animal Agriculture Proceedings, Purdue University, Lafayette, Indiana, April 20-22, 1958, pp. 41-42.

marketing with those of large enterprises, will see their risks decrease appreciably. What would happen, for example, to farmers which would not have their production contracts renewed?

It might be possible that the farmers could benefit from the integration programs if they could choose among various contracts offered by a good many companies. In this case, there would still remain a large amount of competition. However, as mergers are being carried out in the large enterprises, the farmer will have less opportunity to choose among advantageous contracts. A recent survey carried out by the University of Illinois showed that in the preparation and implementation of contracts, the integrators had all the principal advantages on their side¹².

One thing remains certain in the case of integration realized by non-co-operative concerns. The control extends from top to bottom, that is, from those who hold the capitals down to the farmers. On the other hand, profits realized return in good part to the large enterprises.

3. The economic and social repercussions of integration: It would be too long to analyze thoroughly the repercussions of integration. We can only call the attention of members of the Committee on certain consequences of the integration programs realized by non-co-operative concerns. Integration can deeply affect the land tenure system. Tenure implies at the same time the concept of ownership of the farm and the concept of control over the farm. When signing contracts, the farmer does not necessarily lose his control over the farm from an ownership standpoint. However, it is quite possible that contract farming represents only one phase in the developments of integration and that it gives rise some day to the establishment of vast agricultural domains managed by large enterprises (the factory farms) and that these large land-holdings result in the disappearance of a good number of family farms.

At the present time, there is no doubt that contract farming affects seriously the tenure system inasmuch as the control of the farm is concerned. The farmer loses control over certain management decisions, such as the choice of the crops, animals to be raised, feeding and marketing methods. In the case of contract farming, the farmer relinquishes the major part of control over the management decisions. In this case, he becomes a simple wage earner whose function is solely to produce since the operating capitals are provided as well as the technical advice and some farm supplies.

Contract farming is to be found especially in broiler and hog production. Thus a farmer receives X dollars for each finished hog. Piglets and feeds are supplied to him and his role is limited to production. There is no doubt if non-co-operative integration is allowed to expand, farming will become simply an instrument of mass production, a kind of manufacturing plant which can be opened and closed more easily according to one's wishes. It could even be closed at a time when its need would be most urgent. Farming then loses its chief function which is that of being a permanent industry in which independent farmers produce the needed feed for the urban populations while helping to the economic development of the other industries. It would become an instrument of profit controlled by other sectors than farmers themselves.

We also wish to underline the fact that if integration is not properly controlled by the producers themselves, it will be rather difficult to plan production according to actual needs. Farm groups and co-operative organizations would benefit by using their influence and facilities to rationalize agricultural productions, that is, make them more proportionate to the market needs. There is, however, a vast sector of marketing enterprises or concerns closely connected

¹² N.G.P. Krausz and Richard Kirk, *Description of Farm Integration Contracts and Comments on the Legal Aspects*, (mimeographed), University of Illinois, Urbana, 27 pp.

to agriculture which do not have the same interest and for which integration policies might have another meaning. Even the best assistance policies of the Governments would be difficult to apply if they are not essentially utilized towards a sound agricultural economy.

4. The agricultural co-operatives and the developments of integration: Agricultural co-operatives have always used integration devices, in the sense that they have always considered their services as an extension of the normal activities of the farms. They have always endeavoured to meet the requirements of farmers, not only from the standpoint of production but also from that of marketing. Production contracts applied by co-operatives are only an extension of the services already given. The initiatives which they have taken in this field are tailored to the needs of the greatest number of farmers who own, manage and control already the co-operative enterprises.

For a long time already they have played a coordination role in Quebec agriculture. About two-thirds of our business is derived from the sale of farm produce and we already handle most of the Quebec agricultural produce of importance. Farm supplies also receive as much attention from us and no effort is saved to supply farmers with the basic supplies needed in the operation of their farm and to improve our services in this field.

The Quebec agricultural co-operative movement is in many aspects in a privileged position to carry out integration programs for the benefit of farmers. Co-operatives already own a vast organization throughout the Province. Agricultural co-operatives are to be found in most localities of any importance and farmers have at their disposal various services, both in the marketing of farm produce and procurement of farm supplies. More than 3,000 farmers are members of Boards of Directors and thus, they take an active part in business.

There exists a good number of co-operative feed mills in the Province and most of them, that is 125, are affiliated to the Central. Furthermore, we own the strongest and most complete co-operative abattoir system of the country. In fact, we handle more than 25 per cent of the animals slaughtered in the Province. By reason of our numerous facilities and due to the particular significance which we have always given to the fundamental farm problems, we have in hand several important elements to tackle the problem of integration.

The diversity of our services and our processing and marketing facilities have enabled us to launch various integration programs. Thus, at the local co-operative level, we have prepared and started to apply a financing plan, a hog production contract and a poultry production contract. We have enlarged our facilities at our poultry killing plant. Furthermore, we have started some planning work in the field of poultry products.

The agricultural co-operative movement feels that methods which will increase efficiency in production and marketing of agricultural produce are justified. From an economic standpoint this is the *raison d'être* of the co-operative organizations. However, the leaders of the Quebec co-operatives also believe in the necessity for our farmers to retain ownership of, and control over their farms. This attitude takes an ever greater importance if it is recalled that 95 per cent of Quebec farmers are owners of their farm. Furthermore, the leaders of the agricultural co-operative movement, contrarily to those of large enterprises, bear in mind social repercussions of integration. Our production and feed contracts have been conceived in the best co-operative spirit and they do respect the freedom of the individual and his right to ownership.

Our production and feed contracts have been prepared with a view to achieve a better equilibrium between production and market needs. In our organization, producers themselves are keenly interested in working towards an orderly marketing since farming is a way of living.

Short term credit facilities are insufficient in our co-operatives. We believe that governments should enable co-operatives to benefit from their agricultural credit policies.

5. Measures required to facilitate integration: Several measures could help farmers carry out integration programs at their benefit. We have already mentioned the activities of the co-operatives of the Province of Quebec. We have built up adequate processing and marketing facilities and we have saved no efforts to improve our services constantly.

It also seems evident that if the economic position of farmers is improved, they will be in a better position to invest larger capitals in production and marketing, and to assume a greater part of the risks attached to production. Governmental measures designed to improve the economic position of farmers could do much to prevent the dangers of certain integration developments.

On the other hand, more intensive and more specialized extension services of the Governments, will allow farmers to better manage their farms by making a greater use of governmental technical services. A continuous effort to help farmers improve the grading of their products would also be very useful. Banks, Caisses Populaires, and Credit Unions can also play a leading role by making available to farmers larger sums of production credit.

Finally, Governments can also greatly help farmers carry out their own integration programs. We have already mentioned a greater effort in the field of extension by Governments. They can also help by an appropriate legislation designed to reduce the farmers' risks, like crop insurance for instance. They can also improve the economic level of farmers, especially through their agricultural credit policy. We believe that the Governments can play a prominent role and help agricultural co-operatives to meet the integration problem by an appropriate credit policy.

6. Establishment of a governmental short term credit dispensed to co-operative organisations: The credit policy, whether short, intermediate or long term, needs to be enlarged and improved. Short term credit funds are not sufficient to meet the farmers' needs. According to the Royal Inquiry Commission on Economic Prospects for Canada, short term loans in force at the end of the 1955 fiscal year were estimated at \$420.9 million¹³. But, there were in 1955 about 580,000 farms in the country. It appears, consequently, that for a considerable number of farmers, short term credit available was not sufficient to allow them to manage their farm efficiently. Since 1955, with the enlargement of farms and the progress of specialization, the need of farmers for short term credit has been increasing.

As a solution to the short term credit problem, it is suggested that the Government establishes such a credit with a view to permit farmers to obtain at a reasonable interest rate the necessary finance to purchase chemical fertilizers, piglets, chicks, seeds, feeds, etc. This credit could be allocated to the agricultural co-operatives through proper channels including Credit Unions and Caisses Populaires. The reason why this credit would be allocated to the agricultural co-operatives, is that they already possess the marketing and farm improvement facilities. They are aware of the farmers' needs and can supply them with quality products, well adapted to the various regions. The

¹³ Le Progrès et les Perspectives de l'Agriculture Canadienne, janvier 1957, p. 133.

Caisses Populaires and Credit Unions have, on the other hand, acquired a vast experience in the domain of short term farm credit. Many of them are operating essentially in the rural areas.

7. Changes concerning the intermediate and long term credit policies: The Federal Government legislation concerning farm credit needs to be revised and enlarged. In the case of intermediate farm credit, or of Farm Improvement Loans, the conditions governing loans should be made more liberal. The Caisses Populaires and Credit Unions should be allowed to take advantage of the 1944 Farm Improvement Loans Act, so that they can act as lenders and obtain the same guarantees granted to chartered banks. It is known that all loans granted under this Act are made only through chartered banks and that the Government guarantees losses of each chartered bank up to ten per cent of the total outstanding Farm Improvement Loans. Furthermore, conditions governing long term loans granted by the Canadian Farm Loan Board could be modified so that more farmers could enlarge their farm, substitute farm machinery for labour and so as to enable them to make any other production adjustment within the scope of the Act.

POLICY RECOMMENDATIONS ON LAND USE

In view of the considerable number of farms which do not constitute good economic units, we have considered, as a whole, the measures designed to insure a better land use. We have not, however, neglected the needs of economically poor agricultural regions. In the outline of specific recommendations, we have called repeatedly on the knowledge of the Corporation des Agronomes. We wish to mention that if more recent statistics had been available, our presentation would have been made easier. We would like to take this opportunity to recommend that in the 1961 agricultural census, questions be included on the economic classification of farms. These questions were not included in the 1956 agricultural census. The only regional statistics on the economic classification of farms go back to 1950 and since then farming has undergone deep-rooted changes.

1. Present policies contributing to a better land use: Some agricultural policies presently in force contribute in a direct or an indirect way to the conservation or improvement of soil fertility in the Province. The freight assistance on Western feed grains tends to reduce grain acreage and increase the area in hay and pastures which are better adapted to the land and climatic conditions of the Province. The "Better Farming Competitions" have represented for several thousand farmers an excellent and practical way of acquiring the latest farming techniques. The work of the Provincial Drainage Service constitutes the first step in soil improvement. In addition, the agronomes of the Provincial Department of Agriculture, while teaching producers the farm practices best adapted to their regional conditions, contribute strongly to maintain and improve soil fertility. Finally, the various activities of the Experimental Farm Service have been of a considerable importance in encouraging the adoption of the best farm techniques.

All these measures and policies must be maintained. Some of them would gain from being enlarged or modified. Thus, in the extension activities, more facilities should be made available so that they could be based on a greater amount of research projects undertaken in our various farm regions relating to farm practices and agricultural economics, such as for example, the economic size of the enterprise, rotation, systems orientation of crops and animal productions according to the different farming areas, economical utilization of machinery, etc., so as to teach farmers how to use efficiently the various production factors and make the needed production shifts to render

their farm profitable. The "Better Farm Competitions" should be enlarged so as to enable more farmers to benefit from it. Finally, drainage programs should be carried out with a higher budget, and a master plan. This master plan should include a methodical survey of the natural waterways which shows the most pressing needs for deepening, an educational campaign among the shore residents on the maintenance of waterways, studies on the possible effects of drying of certain lands, and in certain areas on a research program on drainage, land clearing methods, cultural practices and the erosion problems.

2. New measures of farm improvement: It is not possible, in this brief, to elaborate on all important measures which would contribute to the improvement of soil resources in the Province. It is only possible to mention but the most important ones.

(a) Establishment of a Farm Rehabilitation Commission:

It is recommended in the first place, that a Farm Rehabilitation Commission be established. The first task of this Commission would be to recruit specialists such as prosperous farmers, agronomes, economists, sociologists, engineers, etc. These specialists would be assigned first to the survey of agricultural resources principally in the Frontier region—the province is divided into three regions—or in any other region where a number of farms would be liable to become profitable. This survey would take into consideration soils, water resources, farmlands, farm practices, social characteristics, economic classification of farms, and the standards needed in the classification—of marginal and sub-marginal enterprises, etc. in a few parishes chosen as a sample. Once the survey of agricultural resources would have progressed sufficiently, the Commission would formulate specific programs related to soil conservation, woodlot management, water utilization, meadows and pastures improvement, enlargement of farms, etc. The specific programs would be tied in with a general program designed to enable farmers to make the production readjustments necessitated by a rational land use. This Commission would also administer a federal rehabilitation credit established to help the farmer in adopting the various measures for land improvement.

(b) Establishment of a Provincial Conservation Board:

The measures taken in the Province to control erosion have been mainly confined to wind erosion. Conservation plans involving windbreaks, stabilization of sand dunes, recommendations on the appropriate cropping systems have been laid out and rapidly carried out. For example, the flue-cured tobacco region of Joliette has become one of the most prosperous of the Province. There remains, however, numerous other localities where the damage of wind erosion has been observed.

The multiform phenomenon of runoff erosion appears much more important. The soils of the Province of Quebec are in very numerous localities—especially in the highlands of the Laurentians and the Appalachians—endangered by degradation or destruction by the various phenomena of erosion. Unfortunately, the damage caused by water erosion is not sufficiently known. For lack of an over-all plan and of specialists, the only information available are the observations recorded on the damages caused in various localities of the Province, such as drying of river bed followed by sudden floods, gulley formation sometimes of considerable extent, landslips along river banks, runoff on sloping lands, etc.

To prevent erosion damage, the following measures are recommended:

1. That a Provincial Conservation Board be established (including hydraulic engineers, forestry engineers, agronomes, etc., with a view to elaborating an over-all conservation program of the so-called renewable resources);

2. That agronomes specialized in soil conservation be trained (urgent need);

3. That a special service attached to this Council teach farmers the best methods of reforestation, cover crops, contour tillage, strip-cropping and terracing;

4. That a study be made on the problems of rational utilization of soils for each river basin, with the aim of bringing together the recorded observations on sensitivity of soils to erosion, appropriate cropping systems, drainage and reforestation needs, and the most economical use of these basins;

5. That soil maps indicate the degree of erosion sensitivity;

(c) Breeding of grasses for pastures and meadows—

Throughout this brief, the importance of breeding the proper grasses for pastures and meadows has been mentioned, together with that of the rational management of the farm woodlot. Without doubt, this should be the beginning stage in the rationalization of our agriculture.

Our meadows and pastures show too low an average yield per acre, that is 1.4 ton of timothy and clover hay and a carrying capacity of one-fifth to one-sixth animal unit. Research must bear on:

1. The breeding of domestic forage crops, that is the profitable use of their natural hardiness;

2. The ecology of these plants;

3. The creation of highly productive, annual or perennial varieties of grains and legumes;

4. Introduction and suitability of such plants;

5. Artificial drying (dehydration) of hay;

6. Green silage;

7. Irrigation of meadows and pastures;

8. Systematic determination of the most suitable forage crops in various regions by means of illustration farms, etc.;

The Experimental Stations of Eastern Canada, especially those of Kapuskasing, Lennoxville, Ste. Anne de la Pocatière and Nappan, are already at work in this area of research. However, their work, even if well conceived and executed, is far from being proportionate to the importance of the grass problem as we know it. The specialists devoted to these activities should be more numerous and their facilities improved. If only a small proportion of the sums devoted by the Canadian Government to the cereals breeding, were allocated to these projects, the picture of Eastern agriculture would be completely changed. By the same token, a great number of marginal and sub-marginal enterprises would be saved. On the basis of proven results, more emphasis should be placed on the advantages of early maturing hay crops, alfalfa cultivation—a most desirable forage crop—on the improvements of pastures through the introduction of suitable plants such as brome, birdsfoot trefoil, ladino, etc., on the irrigation and fertilization of pastures.

The Federal Government should, in collaboration with the interested provinces, provide the necessary facilities so that a larger quantity of chemical fertilizers be used on the depleted pastures of Eastern Canada. This would complement its very useful policy on freight assistance on Western feed grains, which contributes indirectly to the land fertilization in Eastern Canada, and which must be continued.

Finally, the improvement of meadows and pastures cannot be conceived without a corresponding improvement in the husbandry methods. Effort should be made to bring the average yield of milk production per cow in Quebec from the present level of 5,400 to 8,000 pounds. Artificial insemination is a sure, rapid and economic way to achieve this result when coupled with other pertinent farm practices. After many others, we wish to emphasize that the raising of cattle is oftentimes an excellent way of using meadows and pastures profitably, especially in the cases of extensive farming or in the case of the farms which are far removed from markets.

(d) The rational management of farm woodlots:

Farm woodlots in 1957 including maple products, yielded to Quebec farmers a cash income of \$29.2 million or approximately eight per cent of total cash income from farm products.

A quick glance at table 4 of the appendix shows the importance of the farm woodlots in the economy of the small and part-time farms. According to many agronomes, many farms located in the Appalachian and Laurentian regions would not be profitable without their woodlots. Many of them go as far as to declare that for these enterprises, the destruction of the woodlot is the beginning of bankruptcy. On the other hand, the renewal, the conservation and the wise management of the woodlots, as well as of the water reserves, are the basis of their prosperity.

Furthermore, the Quebec Forest Products Association in a recent public declaration stated that well managed farm woodlots should be capable of supplying one fourth of the wood utilized by the forestry industry of the province. It urges strongly a move in favour of the establishment of farm woodlots.

There is no doubt that this movement should be encouraged, provided, however, that the soils are used according to their suitability (after lands have been classified according to their agricultural or forestry suitability), that woodlands should be consolidated into economic units, that the principles of forestry are stressed, and that the Government helps in the financing and reafforestation. Briefly, the development of farm woodlots, by whatever means, is vital for a number of small farms.

CONCLUSIONS:

Upon the completion of this brief, we would like to recall that its preparation has been based on the Committee's terms of reference, that is: "... Land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it". Our observations, however, are confined to Quebec agriculture.

We have attached a certain importance to the problems created by the marginal and sub-marginal farms. But in a study of such a general character, these problems had to be tackled within the framework of our farm economy. In fact, land use and the ways and means to be taken to ensure the best possible soils utilization represent but one aspect of the agricultural problems.

The study of farm size was not given undue consideration because farm size and farm income potential are not necessarily correlated.

On the other hand, we believe that the present system of land tenure in Quebec, which is characterized almost exclusively by the farm operator's ownership and farm family enterprise status offers great advantages. It is essential to maintain this type of tenure if we wish to preserve an agriculture

resting on the family enterprise rather than evolve in the direction of over-sized landholdings which, in our estimation, would lead to a less rational allocation of our agricultural resources. The industrialization in Quebec, the rather restricted area of tillable land, the rapid growth of population and the development of cities and towns constitute as many factors liable to help our farmers find more numerous, more advantageous and more diversified markets for their products. This situation should also encourage the maintaining of farms of average, and variable sizes.

The actual disparity between farm income and the income realized in non-agricultural economic pursuits appears to be the original cause responsible for the adjustment crisis which faces us presently. This situation could have serious consequences if government or other agricultural policies do not favour the maintenance of the family farm. We do not mean by family farm the obsolete concept of farming which used to be associated with the cultivation of more or less profitable farms, but rather the kind of agriculture in which the farmer, while remaining owner of his farm, will derive an acceptable income for himself and his family. It appears essential to us that we bear in mind this essential goal: that farming should not be allowed to become an anonymous economic enterprise but, on the contrary, should be directed towards the establishment of good economic units which, at the same time, would constitute a way of living for those engaged in it, that is the agricultural class.

In this brief, we have discussed at some length the various applications of integration in agriculture in order to draw the Committee's attention on their importance and their economic and social impact on our agriculture.

We do not condemn integration. In fact, the co-operative enterprise accepts it since it has always carried it in practice. We believe, however, that the rational development of agriculture—which is based on a good land use—must be carried out by those people who have the primary interest in maintaining an equitable balance between the use of soil resources and the real needs of our economy. In other words, this aim can be accomplished through a system where farmers own and manage their production, processing and marketing facilities. This is what led us to point out the role played by the co-operative enterprise, an essentially democratic enterprise aiming at service and savings, and meeting the above mentioned needs.

We do not feel that it is necessary to recall the specific recommendations contained in our brief concerning the rational use of soils since we believe they are fairly well known and accepted, and will probably be found with some variations in several other briefs. We maintain, however, that to be efficient, those specific policies will have to rest upon general policies aiming at the following objectives:

- (1) Raise the standards of living on the farms;
- (2) Facilitate the needed adjustments in production and marketing of agricultural produce so as to achieve a better balance between agricultural production and market needs;
- (3) Contribute to the maintenance and improvement of the family farm.

We wish to express our deepest appreciation for the honour and the privilege of having been called before the Special Committee of the Senate on Land Use in Canada.

We hope that this brief even though incomplete, will be considered as a gesture of collaboration and we will be most satisfied if it contributes to any extent to promote a healthy agriculture in a prosperous country.

TABLE 1.
REAL NET INCOME REALIZED BY FARM, PROVINCE OF QUEBEC, 1949-57

Year	Realized net income ^{a b}	Index of farm family living, Eastern Canada		Real net income ^c	Number of farms ^d	Real net income realized by farm
	million dollars	1935-39 = 100	1957 = 100	million dollars		1957 dollars
1949.....	206.2	171.4	81.4	253.3	138,405	1,830
1950.....	208.2	175.4	83.3	249.9	136,372	1,832
1951.....	251.6	196.5	93.3	269.7	134,356	2,005
1952.....	239.2	208.2	98.9	241.9	131,992	1,833
1953.....	220.7	201.4	95.7	230.6	129,648	1,779
1954.....	212.7	202.0	96.0	221.6	127,304	1,741
1955.....	223.2	201.6	95.8	233.0	124,960	1,865
1956.....	184.9	201.9	95.9	192.8	122,617	1,572
1957.....	187.2	210.5	100.0	187.2	120,500 ^e	1,554

^a Revised figures -The realized net income is equal to the sum of cash income and income in kind minus the operating and depreciation charges;

^b Excludes inventory charges;

^c The realized net income figures are adjusted by the index of farm family living, Eastern Canada;

^d The intercensal years have been interpolated.

^e Estimated.

SOURCE: Adapted from Dominion Bureau of Statistics data.

TABLE 2
INDEX OF REAL SALARIES AND WAGES, MONTREAL, 1949-57 (1949=100)

Year	Index of average weekly salaries and wages	Index of consumer prices	Index of real salaries and wages ^a
1949.....	100.0	100.0	100.0
1950.....	104.2	103.7	100.5
1951.....	114.0	116.1	98.2
1952.....	124.9	117.6	106.2
1953.....	132.4	116.3	113.8
1954.....	136.8	116.8	117.1
1955.....	142.2	116.9	121.6
1956.....	149.8	118.4	126.5
1957.....	157.5	121.8	129.2

^a The index of the average weekly salaries and wages is adjusted by the consumer price index.

SOURCE: Adapted from the Dominion Bureau of Statistics.

TABLE 3

INDEXES OF PRICES RECEIVED AND PRICES PAID BY FARMERS AND OF PURCHASING POWER OF AGRICULTURAL PRODUCTS, PROVINCE OF QUEBEC, 1949-57

Year	Index of prices received, Province of Quebec		Index of prices paid Eastern Canada		Index of purchasing power of agricultural products ^a
	1935-39=100	1949=100	1935-39=100	1949=100	1949=100
1949.....	261.3	100.0	208.9	100.0	100.0
1950.....	260.9	99.8	213.8	102.3	97.6
1951.....	305.6	117.0	234.6	112.3	104.2
1952.....	290.2	111.1	247.5	118.5	93.8
1953.....	272.1	104.1	242.3	106.0	89.9
1954.....	264.3	101.1	238.3	114.1	88.6
1955.....	261.7	100.2	241.9	115.8	86.5
1956.....	258.8	99.0	251.9	120.6	82.1
1957.....	265.0	101.4	260.9	124.9	81.1

^a The index of prices received, province of Quebec (1949=100) is adjusted by the index of prices paid, Eastern Canada (1949=100).

SOURCE: Adapted from Dominion Bureau of Statistics data.

TABLE 4
COMPARISON ON CERTAIN FARM
INCOME GROUPS
PROVINCE OF QUEBEC, 1950¹⁴

Farm Groups	Number of Farms	Land area	Average size of farms	Acreage under cultivation (per farm)	Wood lot acreage (per farm)
	—units—	—000 acres—		—acres—	
(a) Farm cash income, \$250-\$1,199.....	18,170	2,114	116.3	35.6	45.0
(b) Farm cash income, less than \$250.....	24,187	1,924	79.5	17.5	35.8
(c) Part-time farms.....	21,189	2,176	102.7	25.9	45.8
Farms (a) (b) (c):					
Total or average.....	63,546	6,214	97.8	25.5	41.8
% of other farms (d).....	89.8%	58.8%	65.5%	43.3%	91.9%
(d) Other farms, farm cash income, \$1200 and more.....	70,790	10,572	149.3	58.9	45.5
All farms in the Province.....	134,336	16,786	125.0	43.1	43.7

¹⁴ Adapted from the 1951 Agricultural Census. Farms of types (a), (b) and (c) are mostly found in the Frontier Region.

TABLE 4
COMPARISON ON CERTAIN FARM
INCOME GROUPS
Province of Quebec, 1950 ¹⁵

Farm Groups	Tractors	Tractor (per number of farms)	Value of farm machinery	Number of electrified farms
	—number—		—dollars—	—units—
(a) Farm cash income, \$250—\$1199.....	2,270	1:8	1,027	11,156
(b) Farm cash income, less than \$250.....	1,353	1:18	620	9,003
(c) Part-time farms.....	2,094	1:10	959	10,463
Farms (a) (b) (c):				
Total or average.....	5,717	1:11	850	30,622
% of other farms (d).....	21.8%	—	38.1%	52.4%
(d) Other farms, farm cash income, \$1200 and more.....	26,254	1:2.7	2,231	58,418
All farms in the Province.....	31,971	1:4	1,578	89,040

¹⁵ Adapted from the 1951 Agricultural Census. Farms of types (a), (b) and (c) are mostly found in the Frontier Region.

TABLE 5
COMPARISON ON CERTAIN FARM
INCOME GROUPS
Province of Quebec, 1950¹

Farm Groups	Milk cows ² and heifers	Beef cows ³ and heifers	Hogs
(a) Farm cash income, \$250—\$1199.....	103,671	6,311	82,549
(b) Farm cash income, less than \$250.....	36,480	3,543	33,926
(c) Part-time farms.....	67,625	4,934	55,922
Farms (a) (b) (c):			
Total or average.....	207,776	14,788	172,397
% of other farms (d).....	23.1%	31.3%	18.4%
(d) Other farms, farm cash income, \$1200, and more.....	898,490	47,246	935,909
All farms in the Province.....	1,106,266	62,034	1,108,306

¹ Adapted from the 1951 Agricultural Census. Farms of types (a), (b) and (c) are mostly found in the Frontier Region (see Table 4).

² Cows and heifers kept mainly for milk.

³ Cows and heifers kept mainly for beef.

TABLE 5
COMPARISON ON CERTAIN FARM
INCOME GROUPS
PROVINCE OF QUEBEC, 1950¹

Farm Groups	Sheep	Hens and chickens	Horses
(a) Farm cash income, \$250-\$1199.....	47,095	668,467	31,151
(b) Farm cash income, less than \$250.....	12,432	411,953	21,779
(c) Part-time farms.....	31,801	589,067	25,885
Farms (a) (b) (c):			
Total or average.....	91,328	1,669,487	78,815
% of other farms (d).....	40.6%	19.8%	51.2%
(d) Other farms, farm cash income, \$1200 and more.....	225,090	8,420,516	154,048
All farms in the Province.....	316,418	10,090,003	232,863

¹Adapted from the 1951 Agricultural Census. Farms of types (a), (b) and (c) are mostly found in the Frontier Region (see Table 4).

TABLE 6
SOURCES OF FARM CASH INCOME FOR LOW-INCOME FARM GROUPS
PROVINCE OF QUEBEC, 1950¹

Product	Farms with income between \$250 and \$1199.	Farms with income of less than \$250.	Part-time Farms	Province
	—per cent—			
Grains.....	2.7	3.6	3.4	3.0
Hay and Forage Crops.....	4.8	21.6	11.3	4.4
Livestock.....	18.9	17.6	17.0	16.0
Dairy Products.....	33.0	10.5	20.9	33.7
Poultry and Eggs.....	4.1	5.8	4.2	7.3
Hogs.....	11.7	6.3	8.7	17.1
Horses, Sheep and Wool.....	2.9	3.8	2.8	1.6
Forest Products.....	14.6	22.7	24.6	7.3
Maple Products.....	2.1	1.5	1.8	2.0
Vegetables.....	1.4	.5	1.4	2.0
Fruits.....	1.1	.4	1.3	1.4
Potatoes, roots and other field crops.....	2.5	3.7	2.2	3.2
Other Products.....	0.2	2.0	.4	1.0
Total.....	100.0	100.0	100.0	100.0

¹Adapted from the 1951 Agricultural Census.

The CHAIRMAN: Thank you, sir.

Senator VAILLANCOURT: Mr. Ferron, you have spoken about the dairy industry. Would you have any production figures for the average cow? How many pounds would it produce in a year, 4,000 or 5,000?

Mr. FERRON: You mean on an average?

Senator VAILLANCOURT: Yes, for Quebec.

Mr. FERRON: The average for Quebec is 5,400 pounds.

Senator VAILLANCOURT: What about both Ontario and Quebec?

Mr. PERREAULT: It is higher in Ontario.

Senator VAILLANCOURT: Do you think it is possible to increase the production in Quebec?

Mr. FERRON: It is certainly possible to increase it considerably because in farm contests where we keep records, the good dairy farmers come to an average of around 8,000 pounds, or even more.

Senator BOIS: 8,000 pounds?

Mr. FERRON: Yes, for the good dairy farms.

Senator VAILLANCOURT: I might say to the delegation that one member of this committee, Senator Bois, was the managing director of the Co-opérative Fédérée for some 15 years. He is well acquainted with the problems in Quebec. He is in a position to talk about them.

Senator BOIS: I do not think there is any explanation to be added to what has been said, especially to the brief itself. It is unfortunate we could not go over all the ideas and facts contained in the brief. There is one thing, however, Mr. Ferron, that I would like to explain. You said that the Cooperative serves as the best means for the farmers to master their own business. It is looked upon by many who do not know the organization of Fédérée sufficiently as another enterprise, a non-profit enterprise, directed by a board of directors and controlled by the same for all practical purposes. In order to show exactly who is controlling the Fédérée, I would like to explain how one votes in the Fédérée. We all know that at the local level there is a vote for every man; but at the central is it the same thing?

Mr. FERRON: Well, at the central it is on the same principle. It is not exactly the same thing, because you can very well understand that we cannot have the 50,000 members vote at the annual meeting, but the voting power at the Coopérative Fédérée still remains with its members. They have democratic control, that is, the cooperatives are voting according to the number of members they have in their local co-ops, and according, to a lesser degree, to the volume of business they are doing with their central cooperative. Farmers are interested in a well balanced agriculture. They are not interested, I would say, in producing so much, or in such a way, that they will put out of balance production and needs, because they are there and will be there in following years, and they are motivated solely by profit but they are interested in a well balanced agriculture. That is why we think cooperatives have a role to play. As a matter of fact, they recruit in the province of Quebec the majority of good farmers, because if your total membership is up to 50,000 members, you may say that a very large proportion of the farmers in the province of Quebec are recruited in the Coopérative Fédérée.

Senator TAYLOR (Westmorland): Am I right in assuming that so far as the local co-ops are concerned, each member of that co-op has a single vote?

Mr. FERRON: Oh, yes.

Senator TAYLOR (*Westmorland*): And then so far as your central is concerned the local cooperative has a vote according to the business and the membership they have?

Mr. FERRON: Yes, but the amount of business is not given the same weight as the number of members. The amount of business is limited to a certain extent.

Senator BOIS: That is the 40 per cent?

Mr. FERRON: That is the 40 per cent.

Senator BOIS: That is, the vote that derives from the business done at the central is 40 percent?

Mr. FERRON: Yes.

The CHAIRMAN: Do you keep up a constant supply of information on that from all cooperatives?

Mr. FERRON: Oh, yes, constantly.

The CHAIRMAN: Farm policy and farm needs?

Mr. FERRON: Oh, yes.

Senator BOIS: They get the regular weekly reports of the markets, and outside of that they get full information from the monthly newspaper *Ensemble* and the weekly newspaper, *La Terre de Chez-Nous*, which devotes a whole page to these matters, and there is always an article or an advertisement of the cooperatives' activities.

The CHAIRMAN: If I may digress, I notice on page 25 of the English brief you talk about lands unsuitable for farming, that is, in reference to lands in the Gaspé and Laurentian areas. That was what you more or less call frontier land?

Mr. FERRON: Frontier region, yes.

The CHAIRMAN: You suggest that those lands there be used in the way of woodlots more than anything else. That is the first part?

Mr. FERRON: Well, of course, you remember that we consider the prolific alternatives of each region.

The CHAIRMAN: What I was going to ask was this: You have these areas where apparently the land is not suitable for agriculture in its usual forms, so you are suggesting in some cases they might be used for woodlots. Do you develop that idea at all in your cooperatives, the use of woodlots, how big they would have to be, so that the farmer could make something out of them?

Mr. FERRON: No, we cannot do that, because it is very hard to say it should be this large or that large. It all depends where it is located, and all depends what else the farmer can do. As we mentioned, there are many alternatives that could be looked at, and that is why our first recommendation is the creation or establishment of a Farm Rehabilitation Commission, because we do not think we can do this without it. In our opinion this should be considered by a commission, where the specialists can tell us the type of land and the use that we can make out of it.

Senator LEONARD: Would that Farm Rehabilitation Commission be established by a provincial Government?

The CHAIRMAN: Provincial conservation board.

Senator LEONARD: Under (a) it just says Farm Rehabilitation Commission. Would that be established by a provincial Government?

Mr. FERRON: Well, as the Senate, is engaged in this work at the present time and is looking for recommendations, our first recommendation is to this Committee, along the lines on which it is working. In (a) we think that a Federal commission could develop such policies in collaboration with the interested provinces.

Senator LEONARD: You contemplated a federal commission?

Mr. FERRON: In (b) we recommended the establishment of a provincial conservation board, and we think that these two boards should work together and there should be real co-operation in work of this nature as between the provincial and federal Governments.

Senator LEONARD: Do you actually think a federal commission could do these things in Quebec or any other province, that is, formulate specific programs with regard to soil conservation, water utilization, meadows and pasture improvements?

Mr. FERRON: We think that it could be done in the way explained above.

Senator VAILLANCOURT: Mr. Chairman, may I give the committee an idea of what our co-operative organization has done in the maple sugar industry. We have a co-operative in that industry, and we have more than 6,000 members. In some districts in Beauce and Dorchester counties we realized the soil in some places is very poor and so these people living there were encouraged to plant maple trees and the farmers did this, 2,000 of them. After 25 years we have had the best of results; the most profitable crop for the farmer there is maple sugar products.

The CHAIRMAN: Does the province provide the small maples to plant? Which government provides the small trees?

Senator VAILLANCOURT: The province does that, but it is not necessary to buy maple trees from the Government because in a maple bush you can take a young maple and transplant it anywhere and it will grow. I remember in l'Islet county that about 50 years ago a certain tract of land was a wheat field, and a very poor wheat field at that, and now there is a maple bush of over 6,000 maple trees on it. After 50 years. In many places in the Beauce district and the Dorchester district, at the top of the hill, we think we can develop this maple sugar tree industry.

The CHAIRMAN: What is the life of a maple tree?

Senator VAILLANCOURT: An average of 200 years, but we can go as high as 400 years.

SENATOR BOIS: How did your farmer live in the meantime, while the maples were growing?

Senator VAILLANCOURT: Well, they received \$2,000 in the spring for five weeks' labour and after that during the summer season some of them went in the bush to cut wood for the paper companies and earn extra money that way.

The CHAIRMAN: While they were waiting for their maple trees to grow they had to obtain work off the farm?

Senator VAILLANCOURT: Yes, that is right.

Senator BOIS: It cannot be done unless other employment can be obtained by these farmers in the meantime.

Senator MACDONALD (Queens): Mr. Chairman, I would like to ask the witness a question about financial assistance to farmers in his province. In previous briefs there was a lot of talk about provincial credits to farmers and I would like if the witness could give us some idea of how the provincial farm credit assistance program is working out in the province of Quebec.

Senator BOIS: Somewhere over \$100 million has been loaned under this credit scheme since it was started in 1936.

Senator MACDONALD (Queens): I have been told that the province of Quebec operates one of the best provincial credit assistance schemes to

farmers in all of Canada and I was just wondering how it is working out. In a previous brief we heard a lot about farmers needing financial assistance. What is the problem in Quebec?

Mr. FERRON: Financial problems, you mean?

Senator MACDONALD (*Queens*): Could you give us the percentage of farmers in the province of Quebec who require financial assistance of this kind?

Mr. FERRON: When you speak of financial assistance, do you mean long-term, intermediate term or short-term credit, or all of them together?

Senator MACDONALD (*Queens*): All of them together.

Mr. FERRON: I should say that they are as high as 75 or 80 per cent.

Senator VAILLANCOURT: It is necessary to divide them as between short-term loans and long-term loans.

Senator BOIS: If members of the committee will look at table III on page 53 of the brief you will see an answer to that question there. That is why they all need credit.

Senator VAILLANCOURT: The province of Quebec has furnished to farmers many millions of dollars for long-term credits. On the other hand, for short-term credits farmers patronize the Caisses Populaires and in each year these organizations furnish up to \$25 million in loans. The money secured in this manner is used to buy fertilizer and other requirements.

Senator MACDONALD (*Queens*): Well, I understand it better now. In other words, what the provincial Government is doing is providing a long-term credit and that is working out well?

Mr. FERRON: Yes, it is working out well because, as I told you, a very large percentage of the farmers need credit and I really think there is no class of people that need so much credit as a farmer because I do not think there is an industry where you need so much capital for such a volume of business. At the present time the capital required for an average farm is around \$30,000. So most of the farmers need credit for short terms because most of them do not have this amount of capital and besides the capital will be needed to assure farm production.

Mr. STUTT: Do local committees in each area approve the loans?

Senator VAILLANCOURT: Yes, for the Caisses Populaires.

Mr. STUTT: Is that a credit union?

Senator VAILLANCOURT: It is much better than a credit union. A credit union covers generally one industry whereas the Caisses Populaires covers a parish. All people in the parish may be members of the Caisse Populaire. That is why the Caisses Populaires are stronger than the credit unions because they cover not only one district but cover 2,000 to 3,000 people.

Senator TAYLOR (*Westmorland*): I understand each union has its credit committee.

Senator VAILLANCOURT: Yes, the same principle.

Mr. FERRON: A large part of the integration controlled by now agriculture interests is due to the fact that farmers do not have the necessary credit. At the present time agriculture is working towards specialization, and when you specialize you need more money; the farmers do not have sufficient working capital.

Senator LEONARD: The co-operatives themselves practice integration.

Mr. FERRON: Yes. It is a normal operation for the co-operative, to practice integration. This integration is done by the farmer himself; the co-operative belongs to the farmer.

The CHAIRMAN: What about your taxation on the land, is that a heavy problem?

Mr. FERRON: Taxation is always a heavy problem, especially where the land is poor and the revenue is low.

Senator MACDONALD (*Queens*): Mr. Chairman, I would like to get a better understanding on this point. Do the farmers in the province of Quebec have to pay land tax straight to the Government, or does the Government expect you to come across with heavy school taxes instead?

Mr. FERRON: We don't have to pay a land tax to the Government. We pay our taxes to the municipality.

Senator MACDONALD (*Queens*): In my province they abolished what was known as land tax, and then they doubled and tripled our school tax. What is your position in Quebec?

The CHAIRMAN: Of course Prince Edward Island does not have municipalities.

Senator MACDONALD (*Queens*): No.

Mr. FERRON: In Quebec our taxes go to the municipalities.

Senator TAYLOR (*Westmorland*): And they are plenty heavy.

Senator BOIS: I don't know if they pay high taxes since I left, but we used to pay a tax on income, business tax and so on, and it runs into tens of thousands of dollars.

Mr. FERRON: Yes, and they are increasing.

The CHAIRMAN: You say at page 11 of your brief that the Quebec farmer is deriving 85 per cent of his cash income from the sale of livestock and livestock product. What percentage of the land is in grass for pasture? Is the pasturage held by individual farmers or on a community basis?

Mr. FERRON: It is individual. There are a few community pastures along the St. Lawrence River, but not very many.

Senator BOIS: The Chairman has in mind a communal pasture, such as they have in the west.

Mr. FERRON: We don't have that.

The CHAIRMAN: Do you run into dry periods on the pasture, which prevents your getting sufficient feed for the winter?

Mr. FERRON: It all depends on the year. For the past three years we have been lucky, but sometimes about August the pasture in the lowlands, where the soil is heavy, dries up.

The CHAIRMAN: I notice you are starting systems of irrigation to some extent. Is that for the purpose of raising feed for stock or for vegetables?

Mr. FERRON: At the present time we are using it for tobacco, some for orchards, potatoes and vegetables, but we are not using it on pastures.

Senator BOIS: In some instances it is used for the raising of strawberries and so on.

Senator MACDONALD (*Queens*): I understand that the province of Quebec is strong on credit unions. I also understand they are fairly strong in large milk distribution plants, where whole milk, butter and cheese are produced in quantity. What about co-operatives by way of livestock and killing plants?

Mr. FERRON: We have quite a development of co-operatives in that field. As a matter of fact last week we handled a sizeable proportion of the livestock in the province.

Senator BOIS: They are regular packing houses.

Mr. FERRON: Yes, co-operative packing houses.

Senator BOIS: Do you remember what the kill was last year?

Mr. FERRON: Something over 500,000.

Senator BOIS: That includes pigs, sheep, cows and so on.

Mr. FERRON: Yes.

Mr. MACDONALD (*Queens*): That is increasing year by year.

Mr. FERRON: Yes.

Senator MACDONALD (*Queens*): And that is increasing year by year.

Mr. FERRON: Yes, it is increasing.

Senator MACDONALD (*Queens*): Are you getting into a larger plant unit in your milk production, for instance, in the province of Quebec?

Mr. FERRON: Do you mean in cooperatives?

Senator MACDONALD (*Queens*): Yes.

Mr. FERRON: Oh, yes. We have here Mr. Deslauriers who is the president of the Cooperative of Granby. It is one of the largest units in Canada. They handled a few hundred million pounds of milk last year.

Senator MACDONALD (*Queens*): Do you mean in that one plant?

Mr. FERRON: No, that one co-op. They have four plants.

The CHAIRMAN: Have you any other questions, gentlemen?

Senator VAILLANCOURT: Where do you send your products?

Mr. FERRON: We send them mostly in Canada and in many other parts of the world.

Senator VAILLANCOURT: All over the world?

Mr. FERRON: Yes, we sell where there is a market. We sell a lot in the states.

Senator VAILLANCOURT: And powdered milk?

Mr. FERRON: Oh, yes.

Senator VAILLANCOURT: I understand your total sales last year were in the order of \$100 million.

Mr. FERRON: \$95 million.

Senator LEONARD: \$95 million altogether? How much in Canada and how much outside?

Mr. FERRON: I do not know exactly how much outside. Most of it is in Canada. It all depends on the markets. When foreign markets are not favourable then we cannot sell there. We sell to the United States and we sell in the other countries. Italy for instance, etc.

The CHAIRMAN: Have you found yourselves with any big surpluses held over.

Mr. FERRON: No.

The CHAIRMAN: You can pretty well market it as it comes?

Mr. FERRON: Yes, we have to.

The CHAIRMAN: You are not like the Government?

Mr. FERRON: Well, at certain times we have a surplus. We have our problems too.

The CHAIRMAN: In the marketing?

Mr. FERRON: Yes. Last winter in the broiler industry it was terrific. We had a surplus production of broilers in Ontario and Quebec, and when you have that it is not so easy to market them.

The CHAIRMAN: Are city industrials hurting you in the broiler industry in their integration?

Mr. FERRON: Yes. Integration is causing us some concern. We are in the cooperative movement, and you may think that we are speaking about cooperatives because we are interested in cooperatives. As an integration is concerned our aim is to balance production with market needs.

I can tell you that at the present time we have a surplus of powdered milk, and the Government has mentioned it might change its policy in regard to those surpluses, but for two years and a half now in the province of Quebec we have said to our cooperatives: "Do not develop your new plants in milk powder". Of course milk powder was a good market at the time. Some cooperatives and other dairy produce organizations wanted to go into that because the market was good. We said to the cooperatives: "Do not develop in that line because we will have a surplus". Private interests went into that industry, and they contributed appreciably to this surplus. The cooperatives are interested in having a stabilized agriculture, and that is why we say in our recommendations on page 49:

Facilitate the needed adjustments in production and marketing of agricultural produce so as to achieve a better balance between agricultural production and market needs.

That is what we are trying to do with the cooperatives, not because we are any smarter than any other, but because we are interested in the welfare of agriculture. We are interested in agriculture, and in having a well balanced agriculture.

Senator TAYLOR (*Westmorland*): Mr. Chairman, I would like to ask this question: In these cooperative packing plants do you have the farmers shipping clubs which ship directly to your plant, or do you buy at the Montreal stockyards?

Mr. FERRON: Our system is a federation of local cooperatives. We have 380 locals scattered all over the province, and they ship to the abattoirs wholly owned by their control. It is their own, you see. The local is owned by the farmer-members, the owners of la Coopérative Fédérée are the local cooperatives.

Senator TAYLOR (*Westmorland*): That is, the cooperative itself?

Mr. FERRON: Yes, so those local co-ops ship to the central co-op. Of course, we have a small percentage of the marketings which come from non-members. They ship to our abattoirs just as they would to any other abattoir.

Senator TAYLOR (*Westmorland*): And you have no organized drovers?

Mr. FERRON: No.

Senator TAYLOR (*Westmorland*): There is another question I would like to ask. I would like to come back to Senator Leonard's question about the Farm Rehabilitation Commission. Have you an idea that this commission would be established under federal legislation?

Mr. FERRON: That is a very difficult question to answer. As I said at first, we think that a program like that should be conducted in cooperation between the two Governments—between the federal and the provincial Governments. What exactly will be the part of the federal Government and that of the provincial Government is very hard for us to say, but I think both of them should contribute to a program like that.

Senator TAYLOR (*Westmorland*): In order to do that there would have to be federal legislation under which it could act?

Mr. FERRON: Yes. Of course, in some of the larger problems such as soil erosion, and things like that, the federal Government takes an interest.

Senator TAYLOR (*Westmorland*): I am strongly of this opinion—and I may be wrong—that if we had federal legislation with flexibility or elasticity enough to cover the various problems affecting all parts of Canada as a starting

point, and then complementary legislation passed by the provinces where the dominion could contribute towards the development of that kind, it would be the best thing.

Mr. FERRON: Yes, it would be.

Senator BOIS: We had something of that kind some years ago when the federal Government contributed to the drainage, and we had a joint enterprise which was financed partly by the province. I suppose we need a national program.

Mr. FERRON: Yes, in collaboration with the interested provinces.

Senator BOIS: And one which would be supple enough, as you state, to have the ability of adapting itself to all the various conditions that exist throughout Canada. But the difficulty comes in the choice of the work to be done. That is where I think my friend is hesitating a little bit.

Senator TAYLOR (*Westmorland*): What I have in mind is this. We have the Maritime Marshland Rehabilitation Act, which is a federal act. We passed exactly the same type of legislation in our own province. The same thing is true in Nova Scotia and I believe in Prince Edward Island. There is a Maritime Rehabilitation Commission set up in which members are selected from the province. They sit on this board along with federal departmental officials and plan programs for the development of the marshland areas. The provincial and federal Governments, together with the land owners, contribute so much money to these schemes. This has been working out exceptionally well. I would like to see some legislation made broad enough to apply to any land development, such as water conservation or drainage. Each province has its own peculiar problems. What I am thinking of is an act wide enough in its application to provide for any problem that may develop in any one province, and to which the federal Government could make a contribution. I just mentioned the Maritime Marshland Rehabilitation Act because it represents the type of co-operation that should exist between the federal and provincial Governments.

The CHAIRMAN: Have you a soil survey in the province of Quebec? I suppose your areas are divided pretty well into three groups.

Mr. FERRON: Yes. We have a soil survey.

The CHAIRMAN: Have you had a provincial soil survey?

Mr. FERRON: Yes. We have a soil survey but I am not sure at the present time if it covers the entire province.

The CHAIRMAN: Would it cover the agricultural area?

Mr. FERRON: Not all of it.

Mr. STUTT: What provincial body would that come under?

Mr. FERRON: I do not know the exact name but it comes under the School of Agriculture at St. Anne de la Pocatière.

Senator MACDONALD (*Queens*): Suppose I were a farmer in the province of Quebec and I wanted my farm soil analysed. Would I have to make application for this or is there a program where by soil experts go out in certain districts and analyse the fields?

Mr. FERRON: You can call on your agronome and he will send the soil sample to the lab.

Senator MACDONALD (*Queens*): That is the usual policy in the province of Quebec?

Mr. FERRON: Yes.

The CHAIRMAN: Gentlemen, if there are no further questions we will conclude this meeting. We have had a very worthwhile discussion here tonight and a vote of thanks should be extended to La Coopérative Fédérée de Québec.

Hon. SENATORS: Hear, hear.

The committee thereupon adjourned.

OTTAWA, Thursday, May 21, 1959.

The Special Committee on Land Use in Canada met this day at 10.30 a.m. Senator Arthur M. PEARSON in the Chair.

The CHAIRMAN: Honourable senators, we have a quorum, and I think we had better get under way.

Before we call on Mr. Halmrast, the Minister of Agriculture, from Alberta, I would like to say something about our proposed trip to the Canadian International Paper Company farm tomorrow morning. I have a letter from Mr. Johnston, the president, saying that they will be very glad to meet us here at the main building, and I wrote him and suggested that we had ten or twelve senators who would be going. I received a wire in reply, in which he said there will be three limousines here at the east door of the centre block at 9 o'clock on Friday morning. We will drive out to the farm, stay there the night, have lunch there Saturday morning, and come back Saturday right after lunch. If there are any senators who have not already intimated that they would like to go, would they please leave their names with Mr. MacDonald, and we shall see that there is room for them.

We have with us this morning the Honourable L. C. Halmrast, who will present a brief to this Land Use Committee. Mr. Halmrast, would you introduce yourself to us, stating your qualifications, etc.?

Honourable L. C. Halmrast, Minister of Agriculture, Province of Alberta:

Thank you, Mr. Chairman and honourable senators. I might say, in giving you a brief history of myself, that I was born in La Crosse, Wisconsin in 1899. We came to Alberta in 1912, and my father took up a homestead east of Warner, Alberta, the constituency I represent. This homestead was 28 miles east of Warner, away out on the prairie. My father was a businessman, not a farmer, although his father was a farmer before him; but he was enticed to come to Canada because of the offer of free land, and many others, of course, came in about that time. As a matter of fact, I think most of the homesteaders came in 1909 and 1910, and there were some coming in yet in 1912. We decided on this homestead for a time, but as I said, my father was not a farmer; he did not do well in this new land, he did not know how to cope with the conditions in southern Alberta; so he decided to give this homestead up and go back into business again, he went back to the United States and we were to follow him later on. Unfortunately, he passed away from a bad attack of the flu—this was in 1918 when the flu was prevalent—and we remained in Canada. So we had to get out and go to work. I left school just before I was 16 and went out on a farm for a while, and then went down to a sheep ranch, was on the sheep ranch for a short period. I went back to the farm again, but preferred sheep ranching, went back to the Rutherford brothers sheep ranch in southern Alberta, and I remained with them until they sold out to another sheep man, Mr. John Henniger, with whom some of you are acquainted, and who was a big operator, a large farmer, sheep rancher and irrigator; and

when Rutherford brothers sold out to Mr. Henniger, Mr. Henniger asked me to remain with him, but I preferred to go on to a smaller outfit, and I had an offer to do so and joined a gentleman by the name of Alex Neil. I remained with him for a time, going into partnership with him and a man by the name of Mr. Millhaem from Warner. I was 21 years of age when I was taken into partnership with these gentlemen, and when I had been with them for five years I decided I had sufficient sheep to start on my own—they had sold me some sheep on time. When I was 24 years old—I moved back south again: I was up around Brooks, Alta. at this time with my partners, and moved south with my little band of sheep, feeling very independent and secure at that particular time, it took me about two weeks to trail my little band of sheep back south. I had a gentleman with me with a wagon who hauled my corrals and camping equipment, and so on, rented a farm east of the Milk River District. I remained there for three years and then I bought a place that had considerable leased land and I was on my way. Sheep prices were pretty good in those years; farming was very bad. There were a number of dry years, with grasshoppers. The cattle business was not very good in the twenties. I recall one year, 1924, I had a small band of sheep, only 412 head, but in one year I had a greater income from my 412 head than all the farmers in the township. Consequently many of them became interested in sheep and to cut a long story short, many of them got into it.

I remained in the sheep business for 30 years and at one time had a flock of around 3,000 head.

I was naturalized, by the way, when I was 24 years old. I thought I should take out my naturalization papers so that I might assume my responsibilities in this new land. Shortly after that I was elected to the local school board as a local trustee and eventually I was on the executive of the trustees' association. I became vice president of that organization for four years.

I was elected to the legislature in 1945; it was a by-election—Solon Low had resigned to go into the federal field.

In 1953 I was asked to take the portfolio of public welfare and I was in that office for one year. About that time the Hon. David Ure, Minister of Agriculture at the time, was killed in a motorcar accident and Premier Manning asked me to take the portfolio of Minister of Agriculture. I have held that portfolio now for five years.

When Mr. Gerhart was defeated in the last election I was then asked to assume the portfolio of Minister of Civil Defence. At the moment I hold those two portfolios, Minister of Agriculture and Minister for Civil Defence.

We have a family of five children, three sons and two daughters. The three sons are farmers, they each have cattle, fairly good Herefords, and they farm a considerable acreage. They would rather farm than do anything else. I have one daughter married in Saskatoon, and Audrey is still with us in Edmonton, graduating from grade 12 this year.

There you have a brief outline of my history, Mr. Chairman.

The CHAIRMAN: It is quite plain that you have had an excellent farming experience all the way along.

Hon. Mr. HALMRAST: Yes, I have been a farmer and a rancher all my life.

The CHAIRMAN: Now, Mr. Halmrast, if you will proceed to read your brief you may do so without interruption and at the close of your presentation there may be one or two questions asked by members of the committee on the whole brief.

Hon. Mr. HALMRAST: Mr. Chairman, Honourable Senators:

On behalf of the Government of Alberta, I wish to express appreciation for the invitation to appear before this committee. We sincerely trust that in

due course your committee may indicate the type of legislative and/or administrative action required to (1) alleviate the distresses of the small farmer and, (2) implement a program designed to promote the establishment of optimum family-sized farms.

Mechanization and commercialization in agriculture has resulted in many problems in farm adjustment. The optimum scale of farming operations continues to increase and many one-time successful farms have become too small to support a family. The large amount of capital required in farming today has practically eliminated the "ladder to farm ownership" that attracted so many immigrants to Western Canada. The development of farms on crown lands—in irrigated and homestead areas—requires more capital than is available to most prospective farmers.

Previous witnesses have discussed the difficulties encountered in determining the extent of the small non-economic farm problem. I should like to say a word about that. Statistics on residential, part-time, non-commercial and commercial farms, which I understand will be available after the census for 1961, will help a lot. However, the economic classification of commercial farms is still based on income from the sale of farm products in the year previous to census taking. This is very unsatisfactory in the West where crop yields and farm incomes vary widely from year to year.

Alberta provided the last major frontier for agricultural settlement in North America. For many years farming had been as much a "way of life" as each farm family wished to make it. However, modern technological improvements, the expansion of public services and a general desire among farmers to improve their standards of living in common with other sectors of the economy, have rapidly changed the outlook and objectives of rural people.

Actually, large-scale settlement on new land ended in the West many years ago. In Alberta, the number of farms reached a peak in 1941. The following statistics illustrate what has been taking place:

Year	Total Population	Farm Population		No. of Farms	Area in Farms	Size of Farms
	'000	'000	% of Total		'000 acres	Acres
1926.....	608	(not available)		68,823*	28,573	415
1931.....	732	375	51.3	86,917*	38,978	448
1936.....	773	400	51.8	89,550*	40,540	453
1941.....	796	384	48.2	93,200*	43,277	465
1946.....	803	336	41.8	84,350*	41,451	491
1951.....	940	345	36.7	84,315	44,460	527
1956.....	1,123	332	29.6	79,424	45,970	579

* Estimated: See Economic Annalist, August, 1956.

The post-war trend toward fewer and larger farms is very definite. However, I suggest the dimensions of the small farm problem is greater today than ever before. Non-economic farms have resulted because of (1) settlement in areas where modern farming methods cannot be exploited; (2) the lack of capital and/or space for expansion; (3) failure to provide the level of management required in farming today; or (4) the lack of suitable alternative employment for those who are not doing well on the farm.

The amount of money needed to acquire a farm business is another cause of non-economic farm units. Young men with limited capital are usually forced to start farming on too small a scale. Prospects for success under these circumstances are becoming increasingly unfavourable. Land prices based on expected earnings on farms of optimum size cannot be realized on a small unit. Thus attempts to scale the ladder to farm ownership frequently end in the establishment of a non-economic small farm.

In Alberta, the capacity of land to produce varies a great deal. Hence, the area of a farm cannot be used as a measure of size without qualification. The following table shows the distribution of farms by area occupied, by census divisions typical of each major soils zone:

Census District	Soil Class	Av. size all farms acres	Farms Classified by Size Shown as per cent of total				
			Less than 70	70 to 239	—acres— 240 to 399	400 to 559	560 and up
Hanna.....	Light brown....	2,074	0.5	3.0	7.7	7.1	81.7
Drumheller.....	Dark brown....	795	1.8	10.4	18.1	15.3	54.4
Red Deer.....	Black.....	372	4.0	30.7	31.8	16.6	16.9
Peace River.....	Transitional and Wooded.....	418	1.8	22.4	36.6	18.0	21.2
Province 1956.....		579	3.8	24.6	28.3	15.2	28.1
Province 1951.....		527	4.1	28.1	29.1	14.3	24.4

The largest farms in Alberta are in the light brown soils zone. The size and organization of farms in this zone underwent major change in the period between the two World Wars. A series of dry years beginning in 1917 forced many settlers to leave their farms in the south; in the early thirties extensive farm abandonment took place in east-central areas around Hanna. The dry years had revealed the serious consequences of over-settlement in these regions. Between 1931 and 1951 the farm population in the Hanna area was reduced by 53 per cent; in the 1951-56 period the average size of farm increased from 1,804 to 2,074 acres, or by 15 per cent.

Consequently, allowing for residential, part-time and retirement holdings, there would appear to be relatively few small farm businesses on our light brown soils. Commercial farming, with emphasis on cattle and wheat, is extensively practised in the area and rainfall variability is so great, there is little fear that the present scale of operations will be reduced.

The Drumheller-Vulcan area forms part of the dark brown soils zone and contains some of Alberta's richest wheat land. In 1956, the farms averaged 800 acres in size. Wheat—200 acres per farm—is the major crop; but, on the average, 245 acres per farm were in summer fallow. However, livestock—36 cattle, 16 hogs and 147 hens and chickens per farm—are not neglected. On the whole, farms in this region are well established and highly mechanized. Incidentally, Drumheller farmers have established an enviable record in winning world wheat championships an unprecedented number of times.

Nevertheless, there are a considerable number of small farms in the Drumheller-Vulcan area. Thirty per cent of the total are one-half section or less in size. Many of the farms now occupied in this excellent farming area

are too small to permit the most efficient use of modern farm machinery. However, we feel that the elimination of small farm units in this part of the Province will be gradual and accomplished without distress.

On the basis of area occupied, small farms are most numerous on our black soils. However, these soils are very productive and adapted for mixed farming. Hence, a combination of field crop and livestock enterprises are common, which reduces the area needed to form an economic unit.

However, 30 to 40 per cent of the farms on the black soils are in the one-quarter section class. Some of these are part-time farms, but others provide the only employment the operator has. Under present circumstances many quarter-section operators are under severe economic pressure. A mixed farm cost of production study was conducted in the Wetaskiwin district for the years 1951 to 1954 inclusive. The average annual labour earnings on one-quarter section farms was \$931 compared with \$3,481 on three-quarter section farms. A farm management study group composed of forty Red Deer-Lacombe district farmers recently analysed their 1958 accounts and reported average labour earnings by size of farm as follows: 1-quarter section, \$594; 2-quarter sections, \$2,611; 3-quarter sections, \$2,808; and one section or more \$3,449. Obviously income from one-quarter section farms must be supplemented from capital or non-farm sources.

More than 40 per cent of the land that might one day be suitable for agriculture in Alberta lies in the grey-wooded soils zone. However, less than one-third of the estimated area suitable for arable purposes in this zone is improved. Many of the farms presently occupied are not sufficiently developed to provide the farm family with an acceptable standard of living. In other words, these farm businesses are at present non-economic because of size.

In 1953, a year in which district crop yields were 40 per cent above average, the Economics Division of the Canada Department of Agriculture made a study of farm income and living expenses in the Wanham-Spirit River area that is in the northern part of the province. The farms under review were divided into two groups by size, below average—290 acres with 126 cultivated—and above average—540 acres with 310 cultivated. In that year returns on capital and labour, including farm perquisites, were \$1,280 and \$2,650 on the small and larger farms respectively. The farms below average in size did not earn sufficient to cover living expenses.

The extent of the low farm income problem on grey-wooded soils may be obtained from the report on the 1956 census. One-third of the farms in the Peace River area contained less than 130 acres of improved land; 45 per cent had fewer than 120 acres in crop. A high proportion of the farms in the region are only partially developed and present conditions make completion of the task a difficult one. In the first place, new farming techniques cannot readily be taken advantage of on grey-wooded soils because of the topography of the land and the size of the fields. Secondly, the general shortage of capital and credit available for farm improvement in the region is accentuated by the fact that returns on land improvements are not quickly realized on these soils.

Our irrigation systems in Alberta serve about 900,000 acres of irrigable land. The development of these lands present special problems. The development of markets for the specialty crops that can be grown take time. One of the major problems in the settlement of newly irrigated land, is to attract farmers with adequate capital. The land is made available for purchase at low cost and on long terms, but we require the settler to have \$7,500 in cash, machinery, livestock and so forth. Actually a minimum of \$10,000 would be better. Economic studies show there is a definite correlation between the amount of capital invested and farm labour earnings on irrigated farms. Farmers with limited capital cannot make the best use of the production resources available.

The foregoing indicates, I think that the extent and proportions of the small-farm problem in Alberta is considerable. Technological advancement has reduced many once optimum sized farms to a non-economic status. In an economic sense, we might say these farms have become at least partially obsolescent.

My view is that barring automation, the consequences of which we cannot foretell, the economic pressure on small farms will continue to increase, but at a reduced rate.

We would suggest that:—

1. The size of a minimum economic farm in terms of land and capital required in the various regions of Canada be determined. This would provide objectives on which to base extension programs relative to farm re-organization and management.

A detailed study has been made into farming operations under the Veteran's Land Act with the objective of ascertaining the "optimum" farm unit. As a result, field supervisors are in a better position to advise as to whether settlers under the Act should invest more in real estate, machinery, livestock and so forth.

The possibilities in this direction could be developed on a wider scale and the results made available to our extension services which are moving into the management field pretty fast today.

2. Consideration should be given ways and means of providing farm credit suitable to the needs of the times.

The lack of capital is a major cause of under-employment and low incomes on farms. The amount of credit available is too frequently insufficient to put the farm business on a paying basis. Supervised credit in sufficient amounts to increase farm efficiency through the addition of land, machinery and/or livestock will promote the development of economic family farm units.

Perhaps I should mention the Alberta Farm Purchase Credit Act. This is relatively new legislation, but our limited experience with it indicates there is a need for the type of credit it provides.

All loans made under the Act must be in respect to a farm business which may be expected to provide a family living and loan repayments as due. The acceptance of an application for a loan must first be approved by a local Farm Purchase Board subject to the approval of a Provincial Board.

The operations of the Farm Credit Boards set up under the Act, have helped to (a) expand the farming operations of credit-worthy borrowers; and (b) facilitate the transfer of farms from father to son.

3. The opportunities for basic and vocational training made available to young farm people require careful study and re-appraisal.

Prospective young farmers today need a broad training in farm technology and farm business management. A great challenge faces vocational agricultural schools and colleges. However, the service to agriculture provided by these institutions is determined to an appreciable degree by the way their students have been prepared for advanced training.

In view of the increasing productivity of labour in agriculture, it would be hard to disagree with those who believe that for some time an increasing proportion of young farm people will seek employment off the farm. Thus the rural school program should include instruction in the arts and skills required by those who must leave the farm, as well as for those who remain on the farm. The character and attitudes of young farm people are highly regarded by urban employers. However, they must be skilled if they are to improve their economic position on transfer to the city.

In the interest of a balanced economy, recognition should be given the almost constant need for the redistribution of people in Canada. A special branch of the employment service might now be set up to facilitate the movement of people between rural and urban occupations that would appear desirable. Further, it may not be too much to hope that one day such matters might be taken into account when immigration objectives are arrived at.

4. A farm resource development and utilization program would provide a useful framework on which to work out long range agricultural policies.

For example, the livestock industry has expanded rapidly in recent years. In view of the growth of population, further gradual expansion would appear to be desirable. In Alberta, grazing resources could be doubled and the production of winter feed greatly increased, especially in irrigated areas. But as things are now, a cycle of dry years could retard development in the livestock industry. A co-ordinated policy designed to ensure feed reserves would permit farmers to plan breeding operations with confidence.

5. The possibilities for part-time farming have not been fully exploited. The establishment of small industry in areas where farmers are not fully employed would provide immediate relief and eventually, perhaps, lead to the consolidation of small farms.

The widespread development of petroleum resources in Alberta has provided many farmers with the opportunity to supplement their farm income. Our information is that part-time labour will be required in oil producing areas for as long as the fields last. The forest industries offer similar opportunities on a seasonal basis.

6. An expanded program of farm marketing research is urgently needed in Canada. The stabilizing effect of regular markets cannot be over-emphasized. Many farmers on relatively small areas of land could be fully and profitably employed if the market for specialty products of Canadian origin was expanded. Ways and means of overcoming competition in the case of many products now imported would form an important part of the study. Important also, would be consideration of the mechanics of assembling, storing and retailing the products grown.

There is active speculation regarding future operations under the agricultural price stabilization board. The inauguration of a deficiency payments policy would appear to be decided upon. In connection with that, may I say only that such payments should be designed to give greatest assistance to the operators of economic family farm businesses.

Now may I submit a few observations on land use and conservation in general and some specific proposals concerning a national policy on land use and conservation.

Canada possesses a rich and abundant heritage of soil and water resources. The rate at which these resources have been and are being developed has created certain undesirable consequences. Some of Canada's virgin forests have disappeared, streams have become silted, floods now occur with greater frequency and agricultural lands in many areas bear the scars of damage from wind and water erosion. While programs for the control and conservation of these natural resources have been developed by Federal and Provincial agencies, there has not yet emerged a co-ordinated national land use and soil conservation policy. Because this Senate Committee is primarily interested in land use, I ask permission to offer a few proposals for such a policy.

In the first place I consider it most desirable that there be established in Canada at the earliest possible date a National Land Use and Soil Conservation Policy. In my opinion this policy should be a co-ordinated effort designed jointly by the Federal and Provincial Departments of Agriculture. A conference of the Heads of the Departments of Agriculture could decide on

principles of the program, and at a later date technical and administrative officials could develop the details. I believe that in the design of such a national policy the following principles should be accepted:

1. Land and water are provincial resources for which the Provinces are responsible under the B.N.A. Act. Notwithstanding this fact, the Government of Canada is as interested in the efficient use of land and water and in the conservation of these resources, as any Province since they are the resources basic to the needs of the Nation.
2. The policy should be a joint effort, not only in its design, but in its operation and financing as well. The welfare of the people as citizens of a Province and of the Nation is the primary consideration. It is, therefore, essential that in all its aspects the proposed policy be a joint endeavour.
3. There should be provision for the special needs that may develop in any area of the country. This may be secured by providing for a standard agreement between Canada and each Province to cover programs common to all and for supplementary agreements to provide for the special needs of any particular Province.
4. After full consultation any study by Federal and Provincial agencies, the final decision to embark on any development would lie with the Province. The division of responsibility in the proposed policy between Canada and a Province is of importance. The following is suggested for consideration:

FEDERAL

1. To provide leadership on a national basis and to secure support throughout the whole Nation for the policy.
2. To suggest programs to the Provinces.
3. To assist in planning and estimating the cost of the program and to provide technical advice and assistance for projects that require special consideration.
4. To receive and assess plans as submitted by each Province.
5. To check, inspect and approve the program during development and after completion.

PROVINCIAL

1. To initiate such programs as the needs of the Province require.
2. To select and decide on the program to be recommended for joint action.
3. To make preliminary plans and estimates in consultation with federal officials.
4. To submit plans and estimates to federal authorities for approval.
5. To carry out the program when Federal approval is given.

The suggestions I am making at this time are based on the hope that the national policy will be jointly financed. I would favor a plan whereby a Province would receive a grant in aid towards the cost of the program that, having been proposed by the Province, has been approved by an appropriate Federal agency. There are several successful precedents for this type of federal-provincial co-operation, e.g., Federal-Provincial Farm Labour Program, Canadian Vocational Training Program, and the Eastern Rockies Forest Conservation Board.

The members of this Committee may be interested in the type of project to be developed under the proposed national program. The following are some examples:

1. Soil survey and classification ahead of any development.
2. Water conservation and storage from the source to final use.

3. Land clearing and the preparation of land for occupancy.
4. Pasture development and improvement, including cultivation, fertilizing, seeding, fencing, etc.
5. Control of erosion by water and the rehabilitation of damaged areas.
6. Construction of irrigation systems, including the preparation of land to take water.
7. The construction of dyking and drainage systems, including assistance for individual farmers.
8. The rehabilitation or repair of irrigation, drainage and dyking systems which, due to age or other causes, are no longer fully serviceable.

Besides projects as are mentioned above, there may be special projects such as tree planting, shelterbelts and farm woodlots, reforestation of land that has been in farms, etc.

I believe this Committee of the Senate of Canada is considering one of the most important matters ever to be the subject of study in this Upper House. The land is the basis for the production of all food on which the human race depends. Although land is, by definition, a provincial resource, it is a national asset, too. I think it is very important that all the people in Canada should recognize their responsibility to the soil, not only because it is the source of their daily bread, but also because of those who obtain their foodstuffs from this country.

During the last few years many representations have been made to the Government of Canada concerning land use and soil conservation, but to date no positive action has been taken to implement the proposals that have been made. It is the earnest hope of the Province of Alberta that from the studies of this Committee will come recommendations on which there may be developed a national program directed to the most effective use of our land and water resources and the conservation of the soil, and in which both Federal and Provincial agencies may participate.

The CHAIRMAN: Thank you, sir; that is a very good brief.

Senator BRADETTE: May I refer to the last paragraph on page 6, where it says: "The land is made available for purchase at low cost and on long terms".

Hon. Mr. HALMRAST: We have a policy in the irrigated districts, the one was to assist the veterans to take up land in irrigated areas, and they could purchase land at about \$15 per acre, anyone else who wished to take up land in this area could purchase land there for \$30 an acre, which is at low cost. The reason that we had to place a low value on this land was that in irrigating land the farmer is faced with greater costs than he is on dry land. First of all, he must prepare his land to take water, and it depends on the ruggedness of his farm; it may require land preparation that might cost ten dollars an acre or might cost \$50 an acre depending on topography. In addition to that he is faced with what we call a water right of \$10 per acre. This water right is to meet a part of the capital costs of irrigation construction. He pays \$10 an acre. It probably costs \$50 or \$60 an acre. Nowadays, it is even higher than that. But we require him to pay only \$10 an acre as a water right. Then on top of that he must pay a water rate, which will be anywhere from \$1.50 to \$2.25 per acre. The water rate, by the way, is paid annually; and the water right is paid only once. That \$10 an acre he may pay in cash or we will give him ten years to pay for it at one dollar an acre per year. So that is the reason we refer to the land here as being made available to the farmers in that area at a low cost.

Senator BRADETTE: Thank you.

Senator HORNER: You speak of the cost of preparing and levelling the ground. In the case of water through a sprinkler of aluminum pipe, how does that compare in cost with the levelling process?

Hon. Mr. HALMRAST: It is higher, sir. The cheapest way to apply water to land is by gravity, and it is cheaper to prepare your land in such a way that you can bring water to it by gravity so that it spreads out evenly; but the sprinkler systems are being used to some advantage on higher ground where you cannot apply water by gravity; and as I say it has been used to fairly good advantage on some farms. The cost of the sprinkler system is quite high, but if they are using it for specialty crops it pays off quite well, that is, for sugar beets and vegetables, and that kind of crops.

Senator BRADETTE: I have one more question, and it is my last: On page 10 of the brief, the third sentence of the first paragraph says: "Many farmers on relatively small areas of land could be fully and profitably employed if the market for specialty products of Canadian origin was expanded." Will you enlarge on that statement?

Hon. Mr. HALMRAST: Yes. We believe that on some of these farms they can go in for specialty crops provided a market can be found. We have a number of specialty crops in Alberta today, and you have them elsewhere as well. In some of the areas of the north, as well as in the south, farmers are seeding some of their land down to rape seed other special crops and there are many other oil-bearing seeds today being produced in the province that are put in this specialty class; but the farmers are a little uncertain as to a market for some of these, and if they can be assured of a market we would have more of these farms going into crops of that kind. In the north they were going in for the production of small seeds on some of their small farms, which paid them very well for a time, but there again the market is not too certain, and they are sometimes concerned about being able to dispose of their products.

Senator HORNER: Some canning factories are of great help if they happen to be near where your production is?

Hon. Mr. HALMRAST: That is right, sir. In the southern part of the province we have canning factories that will take the vegetables that are being produced; they can them or freeze them for the retail trade. We have in the southern part of the province, too, three sugar factories that take the output from the acreages that we have in sugar beets. And so they are assured of a market for those areas. When we speak of specialty crops the farmers say, "I would like to produce some of those specialty crops provided we can find a permanent market for them."

In the southern part of the province there is being constructed today a seed processing plant in Lethbridge. This plant will process sunflower seed, rape seed, flax, mustard seed and safflower seed. We believe that when this plant goes into operation, which will be this early fall, that it will give some stability in that area to the production of specialty crops.

Senator HORNER: What was the total area broken in the Peace River under that scheme?

Hon. Mr. HALMRAST: In the Wanham area? I have not got the total acreage figure here. There were about two townships in that development. It was called the Lassiter project in the Wanham area. This was cleared originally to make homesteads available for veterans of the last war. They moved in to take homesteads in that area and some of them did not do too well while others who remained in there are having their struggles because of dry years and frost. That is the particular area we refer to in our brief

when we say, if there was some other employment for them nearby to supplement their farm earnings they could carry on until such a time when their farms would become a paying proposition.

Senator HONOR: They grow alfalfa in that area, don't they?

Hon. Mr. HALMRAST: Yes, and very good alfalfa, too.

Senator HORNER: But they have great difficulty in getting water for their stock?

Hon. Mr. HALMRAST: You cannot get water too easily there from wells. So other provisions must be made for a water supply. We have a policy of assisting our farmers there to put in stock watering dugouts. We give them a grant of \$120 against the cost of them. Up in that Peace River country wells are difficult to obtain.

Senator STAMBAUGH: Has there not been some difficulty in the seeding of alfalfa?

Hon. Mr. HALMRAST: Yes, there has been some. But in very recent years they have had a good success with alfalfa even as far north as Fort Vermilion.

Senator STAMBAUGH: I think they have had better crops up there than they had further south.

Hon. Mr. HALMRAST: Very good.

Senator STAMBAUGH: They have more bumble bees up there than they have further south, and that helps a lot.

Hon. Mr. HALMRAST: It must be that.

Senator BARBOUR: After this land has been cropped a few years would it not require a good deal of fertilizer to keep it productive?

Hon. Mr. HALMRAST: Yes, the farmers in Alberta have not been using fertilizer to any great extent. It is a new province and they have not realized the need for it but they are now beginning to see the value of fertilizer and with the application of fertilizer they will have greater returns.

Senator BARBOUR: Land from which the bush has been cleared would be of a lighter type soil, would it not?

Hon. Mr. HALMRAST: Yes, they are a light soil, and some of it resembles ash in texture.

Senator HIGGINS: What do you mean when you refer to "grey wooded soil"?

Hon. Mr. HALMRAST: It is a light-coloured soil, it looks almost white sometimes.

Senator HIGGINS: Why do you use the word "wooded"?

Hon. Mr. HALMRAST: It is a term used in that particular area because of the greyness of the soil.

Senator HIGGINS: It has nothing to do with wood?

Hon. Mr. HALMRAST: This type of soil will generally be found in the wooded areas, and because of its greyness it is called grey wooded soil.

Senator WALL: Mr. Minister, the brief is very intriguing with very many generalizations which come probably from factual knowledge which is not at our disposal. But there are a lot of problems that are indicated and merit further discussion. For example, Senator Bradette asked a question about the expansion of specialty products and you indicate on page 10 that there should be a relationship between production and stable markets. That type of relationship, if we wish to have it, presupposes a certain amount or a very interesting concept of controls.

Hon. Mr. HALMRAST: Yes, it does.

Senator WALL: And therefore the problem of expansion of specialty products might presuppose a study of production controls and marketing facilities. I was interested in the next sentence, which reads: "Ways and means of overcoming competition in the case of many products now imported". What are some of those products that brought forth this statement and what might be some of the ways and means of overcoming it? I know it is not a specific question but it would help to clarify the actual intent of the sentence.

Hon. Mr. HALMRAST: As you know, in the province of Alberta, and the same is true of Saskatchewan, we have several bonds of sheep. Sheepmen ask for protection against imports of lamb from Australia and New Zealand. There are other imports as well that effect our producers on the other hand we have a surplus of some grains but wheat has been one of our problems in the western provinces. We have put on an educational program there to encourage farmers to go into crops other than wheat so that we might reduce this surplus of grain. That has been done, as you know. They have reduced the yield considerably. A few years ago we were seeding seven million and eight million acres in wheat and that acreage is now down to five million for this coming year. There is no control there; it is more of an educational program. We tell the farmers that here is a surplus of wheat and this area could produce crops other than grain, and the farmers agree. There is no measure of control there but what we have said in our brief is that in some areas maybe there should be control and I refer to the Hanna area in my brief, an area that was dried out for several years and finally the Government had to step in and declare it a special area, and we said, "Our policy now will be to assist some of you to move out into other areas more productive; some of you will want to remain and by taking over a larger acreage you may have a chance of survival." You will note how the acres increased in Hanna after this was done. There was a measure of control there, and that is what you are concerned with, is it not, Senator Wall?

Senator WALL: Essentially that is about one of the most crucial problems in this whole business, is it not?

Hon. Mr. HALMRAST: Yes.

Senator WALL: The problem is that we want to do certain things and we do not want regimentation, direction, or call it whatever you wish. Even in that question of rape seed production I know how some of the men I know suddenly went into rape seed and made a success of it and before very long twenty other fellows decided they were going to do the same thing and that caused a surplus.

Senator McGRAND: What is rape seed used for?

Hon. Mr. HALMRAST: It is an oil-bearing seed. It is used for margarine production and some other uses.

Mr. Chairman, when we speak of control and regimentation we do not like it but there are times when I think we should probably give some consideration to it in what we call our marginal areas where the farmers are not doing well. We can't go in there and tell them they must move out. But we point out to them that their's is a marginal area; they have been there 25 years and they are no better off than when they came; we point out we have a program for assistance in moving them, and we will give them a grant, depending on the number in the family.

We in Alberta passed an act some three years ago called the Land and Forest Utilization Act. I was concerned about these problems, because in the south I was faced with the problem of being dried out three or four years in a row. This act gave us authority to go into a marginal area and to negotiate with the people, to buy their land and pay them so much an acre, and help them to move out. Then, if some of the farmers wanted to remain in the area

and take over some of the land, we would convert so many acres into community pastures, as we have done on two occasions when we bought out farmers; we have seeded that land to grass, fenced it, and it is now a community pasture. In that way, the other farmers adjacent to the area who want to stay in business can increase their cattle holdings, and diversify their farms to that extent. We do not force these farmers to move out, but we point out it would be to their advantage to do so.

Senator BARBOUR: When you move these farmers, do you think that ends your problems with respect to them?

Hon. Mr. HALMRAST: No, it does not. We advise them to get into an area that is more productive. We don't tell them where they must go.

Senator BARBOUR: But a farmer might be in trouble there too.

Hon. Mr. HALMRAST: He could be. You will all agree that an area that is marginal today may not be marginal five years from now, depending on the rainfall and that sort of thing. I lived in what we called the dry south-eastern part of Alberta, ranching country, where I ran my sheep. For several years the farmers there could not make a living, but I was getting by with my livestock. Now we have had 10 good years in that area, and the farmers who stayed on are today doing well. So, it is no longer a marginal area because of rainfall, but it may some day become marginal again.

Senator HIGGINS: May I ask you to illumine our eastern minds with respect to this matter of irrigation? As you know, we have no irrigation in the east. Where does the water come from, and how is it brought to the farm, and distributed over the farm? Apparently that is an item of major expense.

Hon. Mr. HALMRAST: Yes.

Senator HIGGINS: Will you explain it?

Hon. Mr. HALMRAST: The water used to irrigate the land in southern Alberta comes mainly from across the border in Montana, from the St. Mary River, the Milk River, the Belly River and the Old Man River. Then, we have the Bow River, which of course originates in Alberta, in the Rockies. These waters are used to irrigate our land.

The federal Government joined with the provincial Government in an effort to construct reservoirs and main canals. I have referred in my brief to these joint efforts which we think should be carried on. They are very worth while.

The federal Government built the great St. Mary dam over in the Cardston area, and they also constructed the Jensen dam, and the Ridge reservoir south of Raymond, Alberta. These are reservoirs with the federal Government constructed and paid for; they also put in the main canals. Then from the Ridge reservoir east to Medicine Hat the provincial Government constructed several reservoirs for water storage. So, the water from the rivers come across into Alberta and are used to irrigate those lands. The province has to put in the distributary canals from the main line over to the farm property, and the farmer brings the water from there on to his own land.

Senator HIGGINS: But how does he get the water over this 400 or 500 acres, by a series of pipes?

Hon. Mr. HALMRAST: It is done by small ditches here and there. They have a machine they hook on to a tractor and dig a shallow ditch. These ditches wind here and there through the fields to make sure that the water flows evenly over the land. Only a small piece is irrigated at a time. Small canvas dams are put in to stop the water at a certain point, and shoot it in another direction.

The CHAIRMAN: Is the land all surveyed for water levels?

Hon. Mr. HALMRAST: Yes.

Senator HIGGINS: Irrigation is the major cost?

Hon. Mr. HALMRAST: Yes.

Senator HORNER: The C.P.R. built the first irrigation system in Alberta, did they not?

Hon. Mr. HALMRAST: It started out with the old A & R Railway, back in 1905 or thereabouts. In fact, the Mormons were the early irrigators in Alberta. They had irrigation systems in the United States, and they were the first to start it in Alberta. Then, the A.R. & I. Railway company expanded it, and the C.P.R. took over from there. They carried on for a time, but they had no water storage. If the river was low, of course there was no water for irrigation. The C.P.R. then decided to give this up, and the province itself became involved and took over the responsibility. The federal Government then assured us of the beneficial use of international waters, and it entered the picture. We have this joint dominion-provincial policy of assistance in irrigation. It had been a good policy. We have endeavoured to meet the cost about fifty-fifty: I think the federal Government paid about 55 per cent and we paid 45 per cent. It may be interesting to this committee to know that over the years since irrigation was started it is estimated that about \$125 million has been spent on it.

Senator HIGGINS: What brings the water to the farms?

Hon. Mr. HALMRAST: An open ditch from the main canal.

Senator HIGGINS: But the main canal may be 20 miles away from the farm to be irrigated.

Hon. Mr. HALMRAST: It runs all the way from the St. Mary dam to Medicine Hat.

Senator HIGGINS: A series of ditches.

Hon. Mr. HALMRAST: A series of dams and ditches. The farmer then gets the water on his land by a small ditch from the nearest source of supply. He spreads it over the land by gravity. There are a few now, as I indicated, who use water sprinklers, and when they use water sprinklers they put the pipe into one of the ditches, connect a motor to it and pump the water out, and then they have a series of pipes running down through the fields and the water comes up in a great spray resembling rainfall.

Senator HORNER: Is it not true that part of the land around Brooks in using the flooding method suffered from too much alkali, and it was thought that the sprinkler system would be of more value? Is that not correct?

Hon. Mr. HALMRAST: Yes, that is right, sir. We have a problem, as I have indicated in the brief, of some farmers using too much water in some districts. It stays on the land too long, and it brings alkali up, and then you have a problem. You have to have either surface drainage, or you have to put in underground drains, and underground drains are very expensive. They have to rid their land of this alkali. One can control it better with the sprinkler system.

Senator HORNER: You mentioned the size of the farms in the Hanna area, where they have many thousands of acres under lease—15,000 or 10,000 acres.

Hon. Mr. HALMRAST: Yes, that is right. It goes right back to this general question of control in the special areas. We told these people in the special areas: "You cannot buy any more land in here, but you can have a lease on it for as long as you use it properly."

Senator HORNER: And you cannot over-stock your lease, and you cannot hold a lease without using it? You have to keep a certain number of cattle, or they will take that lease away from you and give it to some one else?

Hon. Mr. HALMRAST: Yes, there must be some control on land use. You have just got to have it. So, we say: "In grazing you can only have so many head of cattle on a quarter section of land." That is, Crown land. If it is your

own deeded land you can do pretty well what you please with it, but even there we have controls. In my part of the country we can only put one cow on 50 acres.

Senator HORNER: That is the regulation in the special areas? That is, for year-round use it takes 50 acres to keep one animal?

Hon. Mr. HALMRAST: Yes.

The CHAIRMAN: With regard to your sub-marginal area of Hanna I understand it is fairly sub-marginal because of the dry weather there?

Hon. Mr. HALMRAST: Yes.

The CHAIRMAN: Are the farmers reasonably successful in that area with a large acreage?

Hon. Mr. HALMRAST: Yes, they are doing very well in the Hanna area now that they have acreages up to 2,000 acres which permits them to produce some grain and some hay, and to have a very good cattle herd. Consequently, they have done very well since that change was made.

The CHAIRMAN: Will that take place in the grey-wooded soils area if you are able to increase the acreage there?

Hon. Mr. HALMRAST: Yes, that is the problem we are faced with now in these grey-wooded soils areas. Where we put the veterans we are faced with a problem there, so this spring I sent my directory of the Land and Forest Utilization Committee over there, and he has come back now saying that his committee, composed of officials from various departments, will go in there and make a study of the situation. We have already indicated to a small group of farmers there who are in trouble that we will buy them out, and we will establish a community pasture in the Wanham area.

Senator WALL: Apropos this particular area—and I am digressing from some more basic questions I want to ask—and knowing more about the land and its probable utilization, and knowing more about the farmer experience on smaller holdings in certain areas in the province, is the province now at the stage where it can, in effect, prevent the establishment or the settlement of small holdings which are known will finally bring us the kind of problem you are just now describing?

Hon. Mr. HALMRAST: Yes.

Senator WALL: In other words, how did this happen that you are now in the position that you have to send your director up there because certain groups of veterans who settled not too long ago are now in trouble? Why were they allowed to get into that position?

Hon. Mr. HALMRAST: We put this land aside for veterans. We hired contractors to go into there and clear this land, and even to break it up. Some of you may have heard of the Lassiter deal. Mr. Lassiter is a large-scale farmer in southern Alberta, and he took on a contract with the government to go into this area and clear and break a portion of it.

Senator HORNER: Was not the contract for 200,000 acres?

Hon. Mr. HALMRAST: Yes, around that.

Senator HORNER: I took a trip up there, and they told me it was land which had grown large spruce trees, but it was not difficult to clear so far as I could see. The roots were not deep.

Hon. Mr. HALMRAST: Yes.

Senator HORNER: But it was an amazing sight to see a whole township ploughed up with only the road allowance left.

Hon. Mr. HALMRAST: Yes, that is right.

Senator HORNER: I could not help thinking what a boon it would have been, where I homesteaded, to get the bush off as easily as that.

Hon. Mr. HALMRAST: Yes, we cleared this land for them, and invited them in, and gave the veterans a homestead and started them out, but they had a series of bad years. One year they were rained out and frozen out, and the next year they were dried out. They had troubles one after another, so it has become a problem there, and the only control we have over any one going into that area at all is on the land held by the Crown. We have control over that and we can say: "You are not going in there", but we cannot prevent a man going in and buying deeded land anywhere he likes.

Senator HORNER: Did you not have trouble with land lying there without any takers?

Hon. Mr. HALMRAST: Yes, we had difficulty getting settlers on some of the land.

Senator HIGGINS: Are farmers allowed to take all the timber off their land, or should there be so many trees left there?

Hon. Mr. HALMRAST: Land they have purchased out-right they can do as they like with, but on land they take up as a homestead or land they take up under lease has certain controls on it. They have to leave some trees on the area, in the same way as with your Crown pasture lands, in regard to which we say, "You cannot over-graze them. You must leave a portion of grass there to have the proper cover". We have control over anything that is provincial or Crown land.

Senator WALL: Mr. Minister, there are many questions I would like to ask because, I must admit, this brief is most thought-provoking. I have to go to another meeting and I wonder if you could respond to this general concept, that at the provincial level where the province is closer to the problems connected with land use, and where the province has, in effect, carried out certain studies of production costs and incomes—the difficulties of the annual income and so on—in the context of the studies which have been made, the legislation that has been put on the provincial statute books, the administrative machinery that has been set up to handle some of these problems of buying out of farms and re-locating farmers and extending credit to them, and so on, it would appear that some of the basic problems that this committee is looking at are already being handled at the provincial level, and the question would be how to extend, strengthen and deepen that.

Hon. Mr. HALMRAST: Yes.

Senator WALL: Now, in what way do you see the federal Government intervening in that process without upsetting the apple cart?—Take, for example, the problem of farm credit and the Alberta Farm Purchase Credit Act. Perhaps there is an answer there that is already available at the provincial level. How can you see the federal Government assisting in this? Do you see the federal Government providing additional moneys or assessing or helping to assess that operation in view of the experience in other provinces, and saying, "Now, maybe we should do so and so?" How do you see the federal Government fitting into this?

Hon. Mr. HALMRAST: We have the Farm Purchase Credit Act, which is a comparatively new piece of legislation. It is designed to assist the young farmer to acquire land. It is not used for any other purpose. He cannot use it to purchase livestock or machinery, and that sort of thing. It is for land purchase only. We passed that act for that specific purpose because the young men were coming to us and saying, "We cannot buy land. We can buy machinery under the Farm Improvements Loan Act but we can't go to the bank and borrow money to buy land. The bankers tell us, 'You have to have pretty good security and without it we can't advance you any money.'"

So this act was specifically designed for the purpose of assisting these young men in the way I have described. We will advance them up to \$10,000 from a provincial fund. The farmer will say, "That's fine and dandy. I have my 20 per cent to pay down and I have my farm now, but it isn't quite enough. I need more money." However, we feel we do not want to go too far into this field of farm credit and provide everything for them.

Senator WALL: Perhaps you should, and perhaps you are the most competent authority to assess the needs of credit of the farmers who live in your province. Perhaps in some general way there should be enabling help from the federal Government to permit each province to give to its farmers the kind of credit they need, not only this particular one but any kind.

Hon. Mr. HALMRAST: The federal Government, of course, have—

Senator WALL: Oh, I know what they have.

Hon. Mr. HALMRAST: There seems to be a desire on the part of the farmers to have a more uniform type of credit over an extended period. This one of ours with respect to the purchase of land has a 20-year time payment. That is good, but the farmers say, "We need credit for so many other things as well". It is more than we feel we can give them. That is the reason we suggest there should be a national policy of farm credit so that our farmers everywhere can take advantage of it. We hope it will give our farmers more than we are able to provide. I understand the federal Government is working on this scheme and intends some day to bring down a national farm credit policy. I think they realize the problems the farmers have not only in the west but all across the country.

Senator WALL: Mr. Chairman, I promise I will be through and on my way, but I have one more comment to make. On page 8 of the brief you discuss the problem of basic vocational training and there is the inference that there is some deficiency, some lax in the kind of vocational training now being provided on a partnership basis with the federal Government. I would point out, however, that the problem of vocational training per se or of all education is a provincial responsibility.

Hon. Mr. HALMRAST: Yes. The federal Government does take some responsibility in this.

Senator WALL: Is there something missing, even in that field, in which the provinces need additional help?

Hon. Mr. HALMRAST: We think, Mr. Chairman, that there should be an extended program of vocational training. Some things are being done today that are very helpful indeed. We have our agricultural schools in Alberta. There are two of them in existence. We did have three but the one in the Peace River country was partly burned down. Then we have other programs under which our young people are getting some basic training that is very helpful to them. But all in all we feel it should be extended further.

Senator WALL: But did not the province undertake that expansion and is not the present legislation of such a magnitude that if the province wanted to go ahead and even build schools of a boarding type for agricultural training or vocational training, the funds are there or can be provided? Is this not so, if the province really wanted to go ahead and do it?

Hon. Mr. HALMRAST: Mr. Chairman, one reason we advocate federal assistance in matters of this kind is that some provinces can do more and give their people more than can other provinces. Consequently we feel that if there is a federal policy it would be a uniform one to be applied right across the country and each province would benefit equally. That is one of the reasons why when the ministers and the deputy ministers of agriculture meet to discuss these problems, we stress the fact there should be uniform policies. For instance,

it may be that Alberta can do more than Saskatchewan and Saskatchewan can do more than some small province in the east. We would like to see a national policy so that all provinces could share equally.

Senator WALL: Would the provinces not be concerned about jurisdiction?

Hon. Mr. HALMRAST: We would be concerned with some measure of jurisdiction but at the same time we welcome federal aid in these things where it is desirable to have uniformity of service given to our young farm people right across the country.

Senator WALL: I agree. Thank you very much.

Senator HORNER: We have been hearing the comments of a minister from a wealthy province and perhaps his problems are not the same as those encountered in other provinces.

Senator BARBOUR: I don't think the giving of all this credit is the answer to the problem. We have an abundance of everything in Canada today. We have plenty of butter, pork, grain, and so on, and I don't think credit is the answer. I think one of the best sections of the brief is section 5 on page 9, dealing with part-time farming. It reads:

The possibilities for part-time farming have not been fully exploited. The establishment of small industry in areas where farmers are not fully employed would provide immediate relief and eventually, perhaps, lead to the consolidation of small farms.

I think you have to do something to encourage these people to leave the small farms. You can't drive them off and you can't buy them off. You have to form some policy to encourage them to move. If you put industry within their reach to provide work for them perhaps you will get rid of them eventually.

Hon. Mr. HALMRAST: That is right, sir. We see the benefit of small industry in the northern part of the province where they have a number of small sawmills and the farmer is employed there in the wintertime and he returns to his farm in the spring. The money he makes during the winter tides him over pretty well in his farm operations. It is helpful indeed to have industry of that kind in areas where you have small farms. It enables the farmers to have this part-time employment. The same thing is true with respect to the vast drilling explorations for gas and oil. These projects employ some of our farmers in the winter months. Therefore, in these areas it is helpful indeed to have these industries available.

There is a question which probably you will be discussing and which concerns me and those of us in our department. We question about our farmers that are on uneconomic farms. What should we do for them, should we maintain them there by more deficiency payments or more price supports to keep them in the business of farming? Should we encourage them to get off the farm and go into the urban areas; and how can they be employed there? Will they become a problem there eventually and be on relief? Should we encourage that with a problem facing us some day of relief, or give them more price supports? Personally I would like to see them on the farm, because if they go into the cities they will be in real trouble. On the farm the family will be able to eat. I favour price supports and favour deficiency payments of certain agricultural products.

Senator HORNER: But you would have to confine those only to those who need it, you would not give them to the wealthy men?

Hon. Mr. HALMRAST: That is what I have in the brief. Deficiency payments or price supports only to those in that particular category, not to the big operator of farms.

Senator HORNER: That is very sensible.

The CHAIRMAN: Along that line of thought: When you displace a man and tell him that he cannot farm here, he becomes a problem. Eventually you may buy him out and later sell that farm to a farmer who stays there. But the problem is what to do with this man who goes out; are you going to let him wander off and land in some town or city and hunt for a job, and perhaps get one only as a labourer, or are you going to train him to come to a certain point so that he can take his place in urban life, or train him again for a better settlement?

Hon. Mr. HALMRAST: That is right.

Senator TAYLOR (*Westmorland*): I should like to ask the minister a question. You referred to the land purchase policy. What would happen in the case of a farmer wanting to buy a farm outright, that is equipped as a livestock farm, with probably \$20,000 or \$30,000 worth of buildings. Do you give him assistance in that?

Hon. Mr. HALMRAST: No; our policy is to make an advance to a young man wanting to buy a farm, and when we say a young man, we mean a man between the ages of 21 and 55, and it is for land only with the farm buildings, of course, and everything, and we say to him that he must have 20 per cent of the purchase price to put down on this farm. Everything is handled through a farm purchase board in the municipality or county. He must go to them first and put in his application, because the county or municipal officials know him better than we do in Edmonton, and they can judge whether he is desirable as a taxpayer; that is why we send him there. So we say to him that if he will pay 20 per cent down, then we will advance 50 per cent of the purchase price up to \$10,000 just for the purchase of land. We had one example where a farmer wanted to sell everything outright, the land, machinery, and cattle, and everything, all in one deal, and the board turned it down, in that this act was designed merely for the purchase of land and the buildings. We say this, that if you already have land valuated at \$30,000 or more, then you cannot get any help from us under this because we are interested in the family size farm, not in adding to what you have already to make a bigger farm; and we think \$30,000 is a good-sized farm.

Senator HORNER: You have cases in Alberta, and there are cases elsewhere, where perhaps there is a large farm in cattle, and some man has worked for that farmer and proved his ability, and that farmer will sell the farm to him on time. That is going on all the time. If the man is thoroughly trustworthy and capable, the farmer will often sell the farm to him on time.

Hon. Mr. HALMRAST: That is right; that is what he will do.

This is a good policy, too, Mr. Chairman, to assist the son acquiring his father's property. Perhaps the father has some means, but maybe not enough to move in town and buy a house, and will say to his son, "I will turn it over to you and will not ask you for the 20 per cent down payment now, and I will get \$10,000 from this Government fund, and with that that is enough for me to move into town and buy a decent home and carry on.

This is an unique policy, Mr. Chairman. We insure the life of this young farmer; he must pay five per cent interest; the seller of the land gets 4½ per cent; and we put that into an insurance fund. In the event of his death in two or three years, perhaps, the widow has the farm paid for.

Another unique feature is the payments made to the vendor. We take five per cent off that and put it into an assurance fund, and so if in a year this young farmer cannot make his payment we will make a payment to the vendor from this fund, so that he will get a payment whether there is a crop or not; and when the agreements have terminated if he has not drawn anything out he

gets this full amount back that has been held from him. More and more of our farmers are putting their land under this particular plan because they have these assurances and guarantees that they would not have as individuals.

Senator TAYLOR (*Westmorland*): I have another question for the minister: With regard to this irrigation, the fact that there is a water right of \$10 an acre, that is paid once; then there is a water rate per year. Is it economically possible for a grain grower or a livestock man to irrigate his land?

Hon. Mr. HALMRAST: No, generally speaking, it is not profitable for a grain grower to irrigate land, but it is done, and it has even paid off; but to make a profit on irrigated lands I would say that you can make a profit with respect to livestock by producing hay and an abundance of pasture land; you can make it pay off in that you don't have to re-seed every year, you save all that cultivation and re-seeding cost. But in grain it has not been too good, because with irrigation grain is inclined to be late in ripening and there is danger of frost and lodging; there has been some loss there. But in sugar beets and row crops of various kinds, that has really paid off.

Senator TAYLOR (*Westmorland*): Mostly in row crops?

Hon. Mr. HALMRAST: Yes, mostly in row crops.

Senator STAMBAUGH: The word "optimum" is used in the brief. What is your definition of that word?

Hon. Mr. HALMRAST: Well, a sort of a maximum. What is the optimum farm, or the optimum income. It is not really a maximum, but one that is sort of sufficient. The optimum amount is one that you can get by with comfortably.

Senator BARBOUR: That will keep you out of the red?

Hon. Mr. HALMRAST: Yes. There again when you are talking of the economic farm, some say how many acres do you think a farm should have to be an economic farm. I do not think acreage should enter into it at all. I think you will agree, Mr. Chairman, it is the income from the farm that counts.

Senator STAMBAUGH: Well, it could not possibly enter into it now, because there are so many different conditions; for instance, 2,000 acres in Hanna, and maybe 80 acres down in the irrigated area.

Hon. Mr. HALMRAST: That is right.

Senator BARBOUR: In making loans for a small farm, you do not go to a half section?

Hon. Mr. HALMRAST: No. What we say to the farmer who wants to purchase land under this policy of ours—and he may have a quarter section and wants to add to it—that the land he has now, and the land he intends to buy, if they do not have a value greater than \$30,000, he would be eligible to get a loan. If he has no land at all he can buy farm land up to the value of \$30,000 and not over. So many farmers who have some land that is not an economic unit under our policy, they can add to a \$30,000 unit.

Perhaps I may give you some figures quickly which might be of some interest to indicate the crops grown in Alberta. For instance, in 1957 we had 4,881,000 acres seeded to wheat; and this year we expect the wheat acreage to be 4,999,000 acres, so there will be a slight increase over 1957. There was a decrease in 1958. Now we have oats. This year we expect to seed 2,850,000 acres to oats; 3,833,000 acres to barley; and there will be 76,300 acres seeded to fall rye; 20,000 to spring rye.

Now, I think you are interested in some of these other specialty crops. We will seed 80,000 acres this year to mustard; to rape seed, 50,000 acres, which is a big reduction from last year when we had 80,000.

Senator STAMBAUGH: That reduction is brought about by a decrease in the price, is it not?

Hon. Mr. HALMRAST: When you get in these specialty crops—and remember rape seed will not keep like grain will—and you cannot find a market for it, you get into trouble, and the farmers will reduce their acreage. Rape seed acreage was at a peak in 1957 when we had 70,000 acres. It jumped up to 80,000 in 1958 and now it is down to 50,000 acres this year. And in sunflower seed we had 3,700 acres in 1958, and this year they are contracting for sunflower seed acreages, but we do not know what it is going to be yet. But they are hoping to make it 25,000 acres because of this new seed processing plant that is going up.

The CHAIRMAN: Are they raising sunflower seed in the irrigated areas?

Hon. Mr. HALMRAST: Yes, and in the dry lands too. The only trouble with sunflower seed is that you have to harvest it so late, it is so slow in maturing. Those are a few of the figures. We have 38,000 acres in sugar beets in the province, with three sugar beet processing plants.

Senator STAMBAUGH: Are those acreages not all contracted acreages?

Hon. Mr. HALMRAST: Yes, all under contract, and so are the vegetables. We have a vegetable marketing board in Alberta. The egg board failed and they are talking about a livestock board. The vegetable marketing board applies only to the irrigated areas.

Senator STAMBAUGH: Is not sunflower seed acreage also contracted for?

Hon. Mr. HALMRAST: Yes.

Senator STAMBAUGH: But not rape seed?

Hon. Mr. HALMRAST: I think this processing plant has contracted some rape seed acreage.

Senator STAMBAUGH: What about mustard?

Hon. Mr. HALMRAST: Mustard is produced both under contract and privately.

Senator STAMBAUGH: Is there any contracting done on grass seed?

Hon. Mr. HALMRAST: I do not know of any but there may be a few cases with seed houses.

Senator HORNER: What is mustard seed used for?

Hon. Mr. HALMRAST: It has been used to put on ham, Senator Horner, and during the last war they stored great quantities of it in mustard gas, and it has a commercial use.

Senator BARBOUR: Would you say that your farmers are able to stand on their own feet, that many of them are doing very well?

Hon. Mr. HALMRAST: I would say that holds true in some parts of the province. That would apply to the southern part of the province. The farmers there are doing very well. That also holds true of the central part of the province except for the areas west of Edmonton, where there are some parts of that area that are not too well off; you are getting into the forest areas there. And then east of Edmonton there are some very fine farms where the farmers are doing fairly well. In the north they are in serious trouble, though.

One farmer wrote to me from the Peace River area and said, "I have had four crop failures in a row." Frost and drought cause crop failures there. One fall they had so much rain and early snow it just flattened everything out. They did not harvest anything at all in some areas.

Senator BARBOUR: What would crop insurance do for him? How much an acre would it give him?

Hon. Mr. HALMRAST: It would depend on the type of crop insurance we might be engaged in. I understand a bill is coming in to the Parliament on that. I might point out there is another plan in which the province might participate with the federal plan and that is what we have been advocating over the year, co-operation with the federal authorities. I am very pleased to see they are bringing in a bill covering that.

Senator BARBOUR: Would you care to suggest the maximum amount per acre for this insurance?

Hon. Mr. HALMRAST: Under the P.F.A.A. the maximum amount that they get is \$4 an acre. But that is not adequate. In talking to farmers about this and asking them what they think they should have per acre as crop insurance, the answer I get most frequently is about \$8 an acre.

Senator BARBOUR: I would think it would have to be something like that before it would be of much value to a man who has lost his crop.

Hon. Mr. HALMRAST: Yes.

Senator STAMBAUGH: Does P.F.A.A. not pay \$5 now?

Hon. Mr. HALMRAST: I think it is \$4.

Senator STAMBAUGH: I thought it was increased to \$5 a few years ago.

Hon. Mr. HALMRAST: No, I think it was increased to \$4.

The CHAIRMAN: Are there any more questions?

Senator HORNER: Mr. Chairman, I would like to move a sincere vote of thanks to the minister for the very fine brief that he has presented to our committee.

The CHAIRMAN: Yes, Senator Horner, and I think it might be said that the minister answered all the questions asked of him in a very informative way.

The committee adjourned.

2nd Session, 24th Parliament, 1959
THE SENATE OF CANADA

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PROCEEDINGS
OF THE
SPECIAL COMMITTEE OF THE SENATE
ON
LAND USE IN CANADA

No. 8

WEDNESDAY, MAY 13, 1959

THURSDAY, MAY 14, 1959

The Honourable Arthur M. Pearson, Chairman

WITNESSES:

CANADIAN FEDERATION OF AGRICULTURE

Dr. H. H. Hannam, Ottawa, President and Managing Director, C.F.A.
J. M. Bentley, Edmonton, 1st Vice-President, C.F.A., Pres. Alberta Fed. of Agr.
Jean B. Lemoine, Montreal, 2nd Vice-President, C.F.A., Pres. L'Union Catholique
des Cultivateurs, Quebec.
E. A. Boden, Cut Knife, Sask., Director, Saskatchewan Wheat Pool.
C. R. Belyea, Toronto, Economist, Ontario Federation of Agriculture.
Roy Grant, Moncton, N.B., Secretary, Maritime Federation of Agriculture.
J. M. Johnson, Abercrombie, N.S., Director, Canadian Federation of Agriculture.
L. Laventure, Renfrew, Ont., Executive member, Ontario Federation of Agriculture.
Jack Ferguson, St. Thomas, Past President, Ontario Federation of Agriculture.
David Kirk, Secretary, Canadian Federation of Agriculture, Ottawa.
The Hon. E. D. Haliburton, Minister, Nova Scotia Department of Agriculture and
Marketing, Halifax, Nova Scotia.

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Power
Basha	Horner	Smith (<i>Kamloops</i>)
Bois	Inman	Stambaugh
Boucher	Leger	Taylor (<i>Norfolk</i>)
Bradette	Leonard	Taylor (<i>Westmorland</i>)
Buchanan	MacDonald	Turgeon
Cameron	McDonald	Vaillancourt
Crerar	McGrand	Wall
Emerson	Methot	White—31.
Gladstone	Molson	
Golding	Pearson	

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators, Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—

Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

WEDNESDAY, May 13, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 8.00 P.M.

Present: The Honourable Senators: Pearson, Chairman; Basha, Bois, Buchanan, Cameron, Golding, Higgins, MacDonald, McGrand, McDonald, Methot, Molson, Stambaugh, Taylor (*Westmorland*), and Wall.

In attendance: The official reporters of the Senate.

The Committee proceeded to the further consideration of the Order of Preference of Tuesday, February 17, 1959.

The following witnesses from the Canadian Federation of Agriculture, were heard:—

Dr. H. H. Hannam, Ottawa, President and Managing Director, C.F.A., Messrs. J. M. Bentley, Edmonton, 1st Vice-Pres., C.F.A., Pres. Alberta Fed. of Agr., Jean B. Lemoine, Montreal, 2nd Vice-Pres., C.F.A., Pres. L'Union Catholique des Cultivateurs, Quebec, E. A. Boden, Cut Knife, Saskatchewan, Director, Saskatchewan Wheat Pool, C.R. Belyea, Toronto, Economist, Ontario Federation of Agriculture, Roy Grant, Moncton, N.B., Secretary, Maritime Federation of Agriculture, J. M. Johnson, Abercrombie, N.S., Director, Canadian Federation of Agriculture, L. Laventure, Renfrew, Ontario, Executive member, Ontario Federation of Agr., Jack Ferguson, St. Thomas, Past President, Ontario Federation of Agriculture, and David Kirk, Secretary, Canadian Federation of Agriculture, Ottawa.

At 10.30 P.M. the Committee adjourned until tomorrow, Thursday, May 14, 1959.

THURSDAY, May 14, 1959.

At 10.30 A.M. the Committee resumed.

Present: The Honourable Senators:—Pearson, Chairman; Barbour, Basha, Bois, Boucher, Bradette, Cameron, Higgins, Horner, Inman, MacDonald, McDonald, McGrand, Methot, Molson, Stambaugh and Taylor (*Westmorland*).
—17

In attendance: The official reporters of the Senate.

The Committee proceeded to the further consideration of the order of reference of Tuesday, February 17, 1959.

The Honourable E. D. Haliburton, Minister, Nova Scotia Department of Agriculture and Marketing, Halifax, Nova Scotia, was heard.

At 12.30 P.M. the Committee adjourned until Wednesday, May 20, 1959, at 8.00 p.m.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, Wednesday, May 13, 1959.

The Special Committee on Land Use in Canada met this day at 8 p.m.
Senator Arthur M. Pearson in the Chair.

The CHAIRMAN: I see we have a quorum and it is 8 o'clock.

We have with us this evening Dr. H. H. Hannam from Ottawa. He is president and managing director of the Canadian Federation of Agriculture. Dr. Hannam has with him quite a large delegation representing a fair cross-section of the agricultural federations in Canada. I would ask Dr. Hannam to introduce each one of his delegation for the benefit of the senators present.

Dr. H. H. Hannam, President and Managing Director, Canadian Federation of Agriculture:

From Alberta, Mr. Chairman, we have with us Mr. J. M. Bentley, who is first vice president of the Canadian Federation of Agriculture and president of the Alberta Federation of Agriculture.

Jean B. Lemoine, from Montreal, second vice president of the Canadian Federation of Agriculture and president of L'Union Catholique des Cultivateurs, Quebec.

E. A. Boden, of Saskatchewan, director of the Saskatchewan Wheat Pool and a prominent livestock man.

C. R. Belyea, of Toronto, economist for the Ontario Federation of Agriculture.

Roy Grant of Moncton, New Brunswick, is secretary of the Maritime Federation of Agriculture and has been ever since it was started. The Maritime Federation of Agriculture speaks for the two provinces. There is a federation in each province but the Maritime federation speaks for both.

Leslie Young, of St. Anne, province of Quebec, is secretary of the Quebec Farmers Association.

J. M. Johnson, of Abercrombie, Nova Scotia, is director of the Canadian Federation of Agriculture and a past president of the Nova Scotia federation.

L. Laventure of Renfrew, Ont. is executive member of the Ontario Federation of Agriculture.

Jack Ferguson, St. Thomas, Ont. is past president of the Ontario Federation of Agriculture.

David Kirk, on my right, is secretary of the Canadian Federation of Agriculture, and is from Ottawa.

Robert Carbert is director of information of the Canadian Federation of Agriculture and is also from Ottawa.

The CHAIRMAN: Before Dr. Hannam presents his brief I would like to take up with the committee the question of the visit to the Harrington forest farm. I asked Mr. MacDonald to ascertain how many senators would be able to go there on Friday, May 22. We have a total number of 10. If there are any other senators who were not approached by Mr. MacDonald, if they would like to leave their names here after our meeting we would be very glad to have the additional names.

Mr. Johnson of the Canadian International Paper tells us they have room for 15 for a week end there. That would be Friday night, coming back Saturday at noon. The company will provide the transportation and look after us while we are there. Senator Austin Taylor has volunteered to go there in his car if necessary. Thank you very much, Senator Taylor. Senator Stambaugh also, if he is here. I think the Canadian International Paper will be very glad to provide us with transportation.

Now, Dr. Hannam, would you present your brief?

Dr. HANNAM: Mr. Chairman, and honourable senators:

This is the second occasion on which the Canadian Federation of Agriculture has had the privilege of meeting with this Special Senate Committee on Land Use. The first occasion was in March of 1957 at which time we dealt with the question of land use, as we see it, in a broad way. In that presentation we made it clear that our concept of land use included consideration of the economic and social problems of low income farmers and farmers on sub-marginal units.

We have read the third report of the Committee and were gratified to note its preliminary recommendations of expanded and speeded up soil and land use surveys, of more work on the study and management of our water resources, and enlarged research on the best size and organization of farm businesses under differing conditions of land resources and economic conditions. The notice paid in the report to our request for legislation providing for a flexible, co-operative approach to problems of land use, was also welcomed.

We are very pleased indeed that in its sessions this spring your Committee is giving special attention to the problem of the small farmer. Since the spring of 1957 an increasing amount of attention has been focused upon this aspect of the farm problem by farm groups, by government and by professional people in agriculture. The work of your Committee has had a lot to do with this.

In addition the problem recently has been given special emphasis by reason of the great volume of public discussion of what is being called vertical integration. Attention has consequently been focused on the possible and probable consequences of the very rapid rate of technological advance and development in production and marketing methods in agriculture. Such discussion has served to more clearly identify and point up the fact that there is a "small farm" problem with certain characteristics of its own, and that to deal with this problem requires special policies.

In our 1957 presentation we said:

There is no doubt that in every province there are numbers of farmers whose incomes are below a reasonable minimum, and for whom improvement in the prices they receive for their products would not serve adequately to correct the situation. In areas where such farms are numerous there naturally tend to be inferior social services and utilities, and reduced opportunities to the young people to obtain adequate education. The causes of the situation are numerous and complex. They include: poor soil; topography and soils not easily adapted to modern farming methods; inadequate size of the farm unit; lack of capital and/or credit; lack of initiative or management ability on the part of the farm operator.

These various factors may sometimes be found together. Often the initial settlement on poor soils has effectively prevented the accumulation of the capital needed for progress. Yet poor soils are not always a feature of sub-marginal or marginal farm areas.

In some cases, undoubtedly, farms will be found on land which, because of its type and fertility, or topography or both, is simply not suited to successful farming under any conditions. Such lands are definitely sub-marginal for farming and should not be used for this purpose. Again many marginal farms could be established as economic units by consolidation of a number of farms into larger individual holdings; improvement of drainage; enlargement of fields and land clearance; removal of trees and boulders from fence lines and so on. In many cases large scale machinery is needed to do the job. In all there is need for additional capital.

A further need in this connection may often be for farm management guidance to farmers as to the crop and livestock enterprises best suited to their soil, available markets, transportation facilities, and so on. This need of course is shared by many farms and farm areas which could not be classified as marginal or sub-marginal.

At another place in the presentation we said:

The rehabilitation of marginal and re-organization of sub-marginal areas will necessarily require a reduction of the numbers of persons farming in those areas, and re-establishment of some families. It will also involve special programs to assist those farmers who remain to develop a program adequate to the needs of the family.

- (a) In the case of lands which are definitely submarginal, there should be a program under which farmers on these lands may be given an opportunity of selling their farms to some public authority, and given, too, assistance in relocating in some other farm area or establishing themselves in some other occupation.
- (b) In areas which are marginal special programs should be instituted for their rehabilitation. Such programs would almost certainly involve some farmers giving up farming in the areas, and assistance in re-establishment should be available to them. Those farmers left should then be encouraged to enlarge their farm units to the size necessary for economic operation, and given special assistance to undertake necessary drainage, clearing, enlarging of fields, construction of buildings, purchase of machinery, reforestation of wood lots, and so on. This clearly involves a number of special services, including farm management service; engineering and other technical assistance and probably special assistance for the use of necessary heavy equipment for drainage and clearing.

Such special rehabilitation programs would necessitate establishing entirely new and special credit facilities that would not only enable the farmer to buy any necessary land, but also essential buildings, machinery, livestock and equipment, on reasonably long terms and at low interest rates. Such credit should be accompanied by farm management supervision and other necessary technical help.

Our purpose today is to discuss with you in a more extensive way than we undertook in 1957 the nature of the "small farm" problem as we see it and the policy measures that might be adopted to deal with it. Before getting further into this, however, it might be as well to review a few of the statements made by Federal Cabinet Ministers which forecast the passage of legislation relevant to this problem. As this is written we are expecting almost daily that new

farm credit legislation will be introduced, and it is our hope that as part of this legislation there will be provision for supervised credit of the sort, broadly speaking, recommended in our presentation to you in 1957. Any adequate policy relative to the low income farm problem must be intimately associated with the administration of farm credit.

Secondly the Minister of Agriculture has said that the government is working on a rural re-development scheme which would be designed to deal with the problem of low income farmers. Speaking for the Country Calendar television program in December Mr. Harkness said:

Another very important plan we have in mind which we are working on is a rural re-development scheme, in order to provide opportunities for work off the farm for operators of small farms which cannot give an adequate living for a family; to assist in some cases a consolidation of those farms into economic units and other activities along that line; to assist particularly those farmers who have not been able, because of infertility of their soil, smallness of their holdings, or other conditions, to secure an adequate living from their present farm holdings.

In view of such statements as these it is evident that the enquiry being conducted by this Committee this year is of very great importance because on its work will depend, to a considerable extent, the nature of the legislation which is ultimately brought down.

The terms "small farm problem" and "the problem of the low income farmer" are both used today with much the same meaning in many cases. In a general way it may be said that the use of these phrases is intended to convey the idea that there are substantial numbers of farmers in Canada whose economic position is so unsatisfactory as to constitute a problem deserving of our attention, and who at the same time have such inadequate resources of land, capital and perhaps of training that under modern farming conditions, and without special help, they cannot hope to achieve anything like an adequate standard of living. Nor, probably, can they hope under ordinary conditions to obtain access to the capital that would make them, economically, a going concern.

The concept is that the "problem of the small farmer" is not amenable to correction by improved policies of marketing, price support, crop insurance or the extension and credit programs ordinarily designed to meet the needs of the commercial farmer. In this presentation we propose to adopt this concept, using it as a general guide to our discussions, although it will be quite apparent that the problem is a very complex one and that in practice the problems of the small farmer and those of the commercial farmer cannot be altogether kept in separate compartments.

The question of non farm income should be kept in mind. As has been pointed out to the Committee by previous witnesses, it is certainly true that to varying degrees the farmers listed in the census supplement their farm income with off-farm employment. Of the 575,000 farm operators reported by the 1956 census, 22.5%—a total of 129,633—reported some amount of off-farm employment, varying in amount from less than one month to from 10 to 12 months. Table I shows this picture by provinces with some breakdown in numbers of months worked.

Table II shows the picture for those farmers who are classed as non-commercial: that is those who operated a farm plant with a potential productivity of \$1,200 or less, plus a few other minor categories. Of this group a full 57 percent, for Canada, showed no off-farm work. Many of these will be pensioners, of course, but it seems clearly indicated that by no means all farmers with very small production have alternative sources of income.

Of course, we do not have adequate data about the actual family income position of farmers, taking farm and non-farm income sources together into account.

TABLE I
OFF FARM EMPLOYMENT OF FARM OPERATORS
(From the 1956 Census)

Province	Number Farms	Number Operators Reporting No Off Farm Work	%	Number Operators Reporting 1-3 months off Farm Work	Number Operators Reporting 4-6 months off Farm Work	Number Operators Reporting 7-9 months off Farm Work	Number Operators Reporting 10-12 months off Farm Work
Newfoundland.....	2,387	1,373	57.5	166	301	167	380
Prince Edward Island...	9,432	7,416	78.6	729	467	300	520
Nova Scotia.....	21,075	12,872	61.1	2,138	1,808	1,121	3,136
New Brunswick.....	22,116	13,192	59.6	2,199	2,264	1,388	3,073
Quebec.....	122,617	84,224	68.7	13,497	11,382	5,281	8,233
Ontario.....	140,602	106,689	75.9	8,396	5,876	3,556	16,085
Manitoba.....	49,201	41,958	85.3	2,869	1,869	775	1,730
Saskatchewan.....	103,391	95,393	92.3	3,503	2,203	750	1,542
Alberta.....	79,424	67,096	84.5	4,761	3,327	1,250	2,990
British Columbia.....	24,748	15,153	61.2	1,547	1,593	1,252	5,203
Canada.....	575,015	445,382	77.5	39,806	31,091	15,843	42,893

TABLE II
NUMBER AND PROPORTION OF FARM OPERATORS OF NON-COMMERCIAL FARMS
REPORTING VARIOUS AMOUNTS OF NON-FARM WORK OFF THE FARM,
BY PROVINCE, 1955

Province	Non- com- mercial farms	Amount of Non-Farm Work Reported							
		None		1-3 months		4-6 months		7-12 months	
		Number and proportion of operators reporting:							
	number	number	per cent of prov'al total	number	per cent of prov'al total	number	per cent of prov'al total	number	per cent of prov'al total
Nfld.....	1,857	982	53	123	7	251	13	501	27
P.E.I.....	2,468	1,540	62	231	9	238	10	459	19
N.S.....	12,945	6,991	54	1,184	9	1,231	10	3,539	27
N.B.....	13,071	6,883	53	1,016	8	1,506	11	3,666	28
Que.....	34,241	19,233	56	2,369	7	4,263	12	8,376	25
Ont.....	26,786	14,651	55	1,219	4	1,589	6	9,327	35
Man.....	5,555	3,440	62	344	6	517	9	1,254	23
Sask.....	4,487	3,599	80	193	4	268	6	427	10
Alta.....	7,337	4,724	64	475	7	662	9	1,476	20
B.C.....	11,482	5,934	52	530	5	714	6	4,304	37
Canada*.....	120,229	67,977	57	7,684	6	11,239	9	33,329	28

* Excluding the Yukon and Northwest Territories.

NOTE: Based on the results of the quality check of the 1956 Census of Agriculture, the 1955 data on non-farm work off the farm appear to be underestimated. This applies both to the number of operators reporting non-farm work and to the amount of non-farm work reported. For this reason the data presented in Tables 19 and 20 should be used with some reservation.

From—D.B.S. Census Data.

The sample survey now being conducted by the Dominion Bureau of Statistics will be very valuable for the information it provides in this, as in many other respects. It may suggest some directions in which study of solutions of the "small farm" problem should take, as well as give us a more accurate measure of its nature, and the extent to which it is a problem.

The inter-relation of the small farm with the over-all farm problem is well illustrated by the following quotation from the President's Address to the annual meeting of the Canadian Federation of Agriculture in January of this year:

Since agriculture is making rapid strides in improving efficiency; since the object of increased efficiency is to produce more at lower costs; and since agriculture is advised to keep on with its rising productivity, what do these facts imply? Obviously, fewer farmers and more production per farm. It cannot mean anything else.

Does it mean then that we can expect the cost-price squeeze to squeeze more and more farmers and farm workers out of agriculture? At the moment that is the fate decreed for many sub-marginal and unduly low income or inadequately financed farmers. When the first batch it out, the squeeze will grip the next batch and so on. Is that it?

The following is the record of the past 10 years (September 1948 to September 1958): The farm labour force has dropped from 1,227,000 to 774,000—a drop of 37 per cent. The decline is made up as follows—in self-employed 29 per cent, in paid workers 23 per cent, and in unpaid family workers 59 per cent.

Actually, the industrial boom and the record wave of general prosperity which Canada has experienced in this period would not have been possible without this transfer of workers from the farm to the city.

Nor should we overlook the fact that many of the squeezed-out families are perhaps better off economically in their urban jobs. In those countries which are not industrialized, the farm population is backed-up on the land and depressed as a result of their excessive numbers. The reason is that a percentage of them cannot turn to an expanding industry outside agriculture as they have some opportunity of doing in Canada.

It is generally agreed that for perhaps another 15 years a progressively smaller proportion of our total population is needed in agriculture as our ability to produce advances and our standard of living rises. It is probably unrealistic to fight against this trend. Surely it would be more sensible if, instead of simply starving families out by the cost-price squeeze, we would develop a forward-looking program designed to encourage and assist those families on uneconomic units, who elect to sell their farms to a public authority, to take advantage of training offered and to move to some non-farm occupation. This point of view was officially approved by the C.F.A. in the last few years, both in our presentation to the Senate Committee on Land Use and in amendments we have included in our farm credit policy. C.F.A. policy recommends that the low-income farmer who prefers to stay in farming be assisted to secure sufficient land, machinery and stock in order to have an economic unit, this to be made possible by special credit terms, supervised loans and in some cases supervised management."

This quotation not only makes it clear that the "small farm" problem is a consequence of changing times and advancing technology, but it suggests that because we can expect further change and further technological advance continuing measures will be needed to meet it. The problem of course is not a new one. Canadian agriculture has been in a continuous process of change

and development for many years. Where families and communities failed to meet the new conditions as they occurred, yet stayed on their farms through lack of material means to change, or through attachment to their homes, or both, the problem has consequently grown increasingly acute. It is precisely those communities and areas which have fallen out of the main stream of American growth and development that are of the most concern in the United States' rural re-development program.

Nevertheless a great deal of adjustment has taken place. The farming population has decreased in many areas through pressure of economic circumstance. While in a great many cases this adjustment will have taken place satisfactorily and without undue hardship, yet undoubtedly there has been sacrifice, loss of the rewards of many years of work, forced changes of occupation with all too little opportunity to learn new skills, or none at all, and so on. Special programs to mitigate the consequences of forced change and agricultural dislocation have probably been needed for many years, but today we think the need for a concerted attack on the difficulties that exist is especially great.

The need is great first because, as we have indicated, there has been accumulative worsening of the position of some farmers and some farm districts. It is great because the rate of change in production and marketing techniques has become very rapid, and the small farm problem grows proportionately. It is great finally because in today's increasingly well-to-do society it is no longer fair or accepted to withhold reasonable and constructive assistance by society from people faced with serious economic difficulty or hardship. We would add that many of the people who make up our "small farm" problem are in their present position because of ill-advised settlement policies in the past. Society has a special responsibility to correct the sub-standard conditions that these unwise settlement policies have created.

It will be clear from what we have said that the "small-farm" problem is an aspect of the agricultural revolution and it is not possible to define with any great exactness, or on a statistical basis, just how many farmers are involved and where they are located. The difficulties of such definition and classification have been well described by witnesses from the Department of Agriculture's economic division. What is clear is that the need is for an effective body of agricultural policies in Canada that will make it possible for every farmer, if he wishes, to:

1. Understand his economic position.
2. Learn what alternatives are open to him and what is involved in adopting each of these alternatives.
3. Have available to him the services, the assistance, the credit and the advice that will enable him to act constructively to, one way or another, better his position.
4. Be supported in his efforts towards improving his circumstances by national, provincial and community programs and policies aimed at creating an environment of maximum economic opportunity.

We would, at this point, emphasize that everything that is done should be done on the basis of the farmer's voluntary participation.

It is evident of course that this problem of the small farmer cannot be met by any one program or administration. In the first place the co-operation of federal and provincial governments, through their respective administrations, is required. In the second place many types of services and separate administrative programs are involved: extension services, credit programs, conservation authorities, agricultural colleges and experimental farms, economic and social

research agencies federal and provincial, the employment service, perhaps housing and industrial development agencies, vocational training and other educational authorities, and perhaps others.

While no one administration can do the job, we do think there is a need for co-ordination of efforts and continuous co-operative study and research. We think that the individual farmer and the community, when they wish to act, should be able without too much difficulty to get advice, information and a clear picture of all the possibilities open to them.

We are not sufficiently well-informed about the details and working of the United States Rural Development program to discuss it at length. We would like to draw particular attention to its existence, however, and suggest that a study of this program might very well be undertaken by this Committee. It is unlikely that what is being done there is quite adapted to Canadian needs. However, it does seem to be based on several very sound principles that should be observed in developing policy in Canada. Five of these principles are set forth:

1. The principle that there is a need for a national program aimed at meeting the small farm problem.
 2. The principle that it is a problem that can only be dealt with by action with the individual and the community, since each individual and each community is a separate problem.
 3. The principle that such a program must be based on the co-operative work and study of the expert, specialist and administrator, on the one hand, and the people concerned, on the other.
 4. The principle that the problem is one to be met by co-ordinating the work several services and agencies can contribute to solutions.
 5. The principle that progress must be based on continuing research.
- In fact, a considerable volume of special studies and surveys has been undertaken in connection with this program.

We should perhaps emphasize, also, at this point, that the Canadian Federation of Agriculture has as its central objective the maintenance of the family farm pattern of farm living and farm enterprise. We believe that the farm population should be maintained at a level which is consistent with achieving for those farmers a satisfactory, fair, and reasonably secure standard of living. The greater the number of people that can be retained in rural communities with satisfactory living standards, the better able the community is to provide adequate community services, educational facilities and other social amenities. We do not accept the proposition that the very large production unit in agriculture is the only one that can be considered efficient or that can survive. We would note, too, that although co-operative ownership and/or operation of farms does not seem to be generally attractive to farm people, it is a very sound type of undertaking in principle, having many of the advantages of the family farm unit, and avoiding some of its limitations.

We would also emphasize, here, that our definition of the small farm is related to the opportunity to achieve and maintain a reasonable level of living, and not to any particular farm size, expressed in acreage, or scale of production. Also, before going on to consider policy questions, we would make the general observation that we do not think the family farm enterprise of moderate size can be written off as on the way out. No doubt the family enterprise will have to enlarge its output further, as it has over the years, and no doubt it will have to adapt not only its production, but its marketing programs, to changing conditions. But no assumption is justified that the future lies with the factory farm. Policies of government and of organized farmers should be directed to encouraging the farm enterprise of moderate size.

The policies we are proposing in this presentation, plus other government price support and marketing programs, plus the self-help efforts of organized farmers through their own co-operative and marketing board programs should be aimed at creating a healthy, viable farm economy. We accept the fact that under present day conditions of technology and of demand for farm products there will necessarily be a continuing trend to fewer farmers. The job of facilitating this adjustment through programs designed to assist the re-establishment of, and to provide alternative economic opportunities outside of agriculture for, some parts of the farm population is part of what needs to be done and part of what we are advocating. But, clearly, as a farm organization we are even more concerned about the job that is done in establishing those who remain on the land in a position that gives them at least a reasonable chance of achieving a fair standard of living, education for their children and a full and happy life.

What then is specifically needed by way of action to meet and deal with the problem of the small farm? The need clearly is to focus all our best efforts upon dealing with this problem from as many angles as possible, but in a co-ordinated way. We do not pretend to have all the answers in detail—some of them will come only with research and experience, but the picture seems to us to shape up something like this:

1. As suggested in our previous presentation to you the first requirement is a federal administration, adequately financed, that in co-operation with the provinces would deal directly with existing problems of the use and conservation of our land resources. Its interests would be in water use and conservation; drainage; marshland rehabilitation; irrigation; river erosion, and other erosion problems; water shed development; wood lot management and development of actual and potential forest product resources in farm areas, to name a few of these matters. Such a federal agency could be the one through which adequate financial resources are applied to ensuring the proper use of our land and the increase of our knowledge about the problems connected with it. Its purpose would not be to replace, duplicate, or parallel existing provincial, federal and university activities. Rather its job would be to achieve, through co-operation with these agencies, a comprehensive national picture of our land use problems, and to help in getting implemented a co-ordinated and comprehensive attack on their solution.

We may mention that a particular land use problem that is causing concern and has recently been brought to our attention is the need to establish more orderly procedures for granting land expropriation and easements for public services and utilities. It is being suggested that rather than running utilities, highways, and the like on a number of slightly different locations, corridors for combining a number of services on one land strip might be established.

2. There should also be a national agency whose special responsibility is the "small farm" problem as such. Its field should be primarily the economic and social aspects of the problem, rather than the technical. As with all questions of conservation and land use an attack on the small farm problem must be based on Federal-Provincial co-operation, with Federal participation capable of flexible adaptation to the needs and programs of the various provinces. As suggested in our previous presentation to you, such an agency should be combined with the national conservation and land use administration in order to facilitate co-ordinated action and thinking. Like the conservation agency this "small farm" administration would have the combined function of serving as a source of necessary financial resources and a centre for achieving

co-ordinated Federal-Provincial action and gathering of information on the question. In this case it should probably, in addition, undertake for itself extensive functions in the field of social and economic research although it may be that this objective could be achieved largely through co-operation with and assistance to other bodies engaged in this work in Canada. Perhaps, somewhat in the pattern being established through the U.S. rural development programme, an important function of this agency would be to work with inter-departmental and advisory committees at the national level. A substantial part of its job would be to ensure effective co-ordination of all agencies and programs whose work and interests bear on the "small farm" problem. This kind of co-ordination could be paralleled at provincial and local level, forming a solid basis for Federal-Provincial action.

3. In the field of research, we would draw particular attention to the desirability of socio-economic studies of the kind now underway in Prince Edward Island. This study is being done by the Economics Division of the Department of Agriculture, in co-operation with the province. It should yield valuable insights into the exact nature of the "small farm problem" in that area.

This is the field of national legislation and administration. In practical terms, what are some of the new or improved services to the farming community that should be developed as part of a Federal-Provincial program. The following occur to us:

1. Adequate supervised credit. This is absolutely essential. A major aspect—we should say the major aspect—of any attack on the "small farm" problem must be the provision of adequate credit on a "package deal" basis through which farmers with sufficient skill and managerial ability who are on presently inadequate units can be established on a sound economic basis.

2. Improved extension services, especially in the field of farm management extension. We would emphasize here the close relation between farm management extension and the supervision of credit. The two should go hand in hand. Also closely related to the need for farm management extension is the need for improved vocational training facilities and opportunities for farmers. There is no doubt that for many farmers one of the major obstacles to their progress is lack of training and information.

3. Purchase at fair prices of the land of farmers who have little hope of becoming established on a satisfactory basis and/or wish to become established in some other occupation. Land so acquired could be resold or used, through well thought-out leasing arrangements, to enlarge the holdings of other farmers who are inadequately set up, if this is indicated, or could be otherwise utilized in community pastures and reforestation for example.

4. Concentrated efforts should be made through investigation and research to open up new opportunities for successful farming, by better adapting crops to land and climate, making improved use of woodlots, and in other ways to systematically explore all possibilities for improved production, marketing and processing of products to which an area is adapted. Research and investigation into production and management techniques adapted to moderate sized farm enterprises should also be undertaken.

5. Development of programs to assist farmers who wish to leave farming to do so, without excessive hardship and difficulty, through vocational training and re-establishment assistance.

6. The possibilities of developing local non-farm industry, or industry related to farming and forestry, should be carefully investigated, in the interests of bettering rural community life by stabilizing population and providing off-farm employment opportunities.

7. Living accommodation is a major problem in farming today. Satisfactory maintenance of a family farm is in many cases not possible unless there is separate family living accommodation for the members of the family or for hired help. Special measures to facilitate the construction of additional dwelling accommodation on farms should be developed in co-operation with the National Housing administration.

It is not possible, of course, at this stage to exactly foresee just what should be done. The main thing is to get forward with the job of finding out. It is perfectly evident however that among the overall needs will be continuing research in all aspects of the problem, methods of co-ordinating action federally, provincially, and locally, considerably increased requirements in the way of personnel, and substantially increased funds for doing what is necessary all along the line.

We would like, before concluding this presentation, to endorse in broad terms one very important point which is being emphasized by the Manitoba Federation of Agriculture in this presentation, a copy of which is being filed for your consideration. This is that one basic requirement for the long-run elimination of the "problem" of the small and low-income farmer is the creation of adequate educational opportunity in all rural areas. In spite of an increasing measure of provincial financing of education, it remains true that the isolation of rural schools, the high costs of transportation in rural areas; the low density of population which makes it difficult to provide adequate all-round facilities; the inadequate level of income of rural ratepayers in many areas and the increasingly discriminatory effects of the real property tax on the farmer—all these factors militate against the rural area when it comes to the provision of fully adequate educational opportunities.

We hope that, in this presentation we have made some contribution to thinking on this "small farm" problem. In making these recommendations we are acutely aware that the success achieved by farm organizations and by governments in developing stable and orderly programs of production and marketing of farm products will be a vital factor in the whole situation. No one problem in agriculture can be isolated altogether from the others in practice.

This is respectfully submitted by the Canadian Federation of Agriculture.

The CHAIRMAN: Thank you, Dr. Hannam. That is a very good brief. Honourable senators, are there any questions that you wish to ask? I am sure that Dr. Hannam, or his assistants behind you, will be able and pleased to answer any question you want to ask.

Senator STAMBAUGH: Dr. Hannam, I note you say that there will be no compulsion of any kind; you do not need to make farmers farm differently—that is your idea, is it not?

Dr. HANNAM: Mr. Chairman, we suggested that these programs for assisting small farmers to move to another occupation should provide for some training and for some assistance, and so forth, and they should also help to enlarge the units of those who choose to remain, and that that should not be accomplished by compulsion but rather it should be done voluntarily. That

is, we think if the facilities were provided for offering assistance to these farmers who wanted to move to another occupation and who had the chance of selling their farms to a public authority—and some assistance to move should be given—a great many of them would do it voluntarily, and that would be much better than making them do it. For those who are left it would be better to offer them educational programs and provide them with enough livestock so that the farm can be made an economic unit for family living. We believe that if enough programs such as this were offered enough would accept to make a big change in the situation.

Senator STAMBAUGH: Suppose a farmer is not getting along very well, and thinks that all he needs is more credit, and he applies for credit, then, in order to give him that credit you might possibly have to say: "Well, you will have to change your farming methods. You are not farming properly".

Dr. HANNAM: I agree with you, but we are not thinking that special credit on special terms should be given to everybody who wants it. They must have enough skill and prospects, and enough management ability, to be able to operate an economic unit. That is, we should be able to give them enough technical assistance and, perhaps, management assistance, and then we should give them credit terms but supervise that credit at least until they have the major part of it paid, you see.

Senator STAMBAUGH: Would you suggest some sort of supervision such as is given under V.L.A.

Dr. HANNAM: Yes, something of that nature.

Senator STAMBAUGH: Of course, they do have some compulsion, too.

Dr. HANNAM: Supervisors always do.

Senator STAMBAUGH: Well, I think they have to.

Dr. HANNAM: Yes, I think so, but that is somewhat different from compulsory legislation or compulsory regulations. If it is done by way of assistance by technical experts, or trained supervisors, or management supervisors, or extension men then it is not compulsory in the ordinary sense.

Senator STAMBAUGH: It is a sort of co-operation, you might say. It is like saying: "We will do this if you do that"?

Dr. HANNAM: That is right.

Senator McDONALD: Mr. Chairman, I am sure we are all grateful to Dr. Hannam and those who are here supporting him tonight. Much time has been put into the preparation of this brief, and I think we have here a great wealth of farming experts and farming knowledge tonight, and we ought to plan our discussion somehow so as to get the greatest benefit from it. Senator Stambaugh has just mentioned some topic which I think we ought to discuss, and I would like to get the views of these men who are here, and of Dr. Hannam, in regard to it. I am referring to farm credit.

The CHAIRMAN: I think your idea is very good, Senator McDonald. We should have an answer in regard to farm credit from each one of the different provinces as to what is taking place in the individual provinces, and hear how that particular province is reacting to this farm credit, if there is farm credit?

Senator McDONALD: We have two men here, besides Dr. Hannam, who are familiar with what has recently been started in the province of Nova Scotia. In the last session of the legislature there was an amendment. I am not as familiar with it as I should be, and I would like to hear from Mr. Johnson or Mr. Roy Grant just what the situation is there now, and what has been done to improve the situation.

Mr. J. M. JOHNSON: Well, we have recommended to the Nova Scotia Federation that the federal Government and the provincial Government should work together on a farm credit basis there in order to solve the problems that our farmers have. We have not so very many big farms; they are mostly family-sized farms and small farms. Some of them will have to go out eventually because they are not capable of supporting a family, but some of them can remain and will remain. The amount that has been available to them—we have two sources of credit. We have the Land Settlement Board and we have the Canadian Farm Loan Board. The Land Settlement Board has done most of the financing in our province. I think they have not up until now been able to give any more credit or assistance to farmers than was already settled. Their job has been to assist newcomers to settle on farms, but with the new legislation that was passed in the last session the Nova Scotia Land Settlement Board can now help farmers to extend their operations. They can go into the mortgage field.

The CHAIRMAN: Excuse me, but is that the private mortgage field?

Mr. JOHNSON: Under the Land Settlement Board.

Senator STAMBAUGH: Is it purely provincial?

Mr. JOHNSON: Purely provincial.

Senator STAMBAUGH: You don't co-operate with the municipalities in any way?

Mr. JOHNSON: No, but we have recommended that the federal board and the provincial board should work together under one supervisory head. We feel that the local people know the farmers and the conditions much better and can give much quicker and more efficient service than a person living far away who is not as familiar with conditions.

Senator WALL: I wonder if I could interrupt at this point because I am interested in this problem of the definition of supervised credits. It is very interesting to me. Are you inferring that the actual technical supervision to be done should be carried out by the provincial people because they are closer to the farmers and farming conditions?

Mr. JOHNSON: That is what we have been recommending, that they should work together. Possibly we could set up a joint board.

The CHAIRMAN: Mr. Johnson, let us say you have two farmers each of whom has a small family farm unit. How do you decide which one will be dispossessed and which one will be allowed to stay? How do you arrive at the value of the farm you are going to buy? How do you arrive at the value the other man should pay?

Mr. JOHNSON: We have not come to that problem yet where we have been trying to assess any value of any farm. We could not say that this fellow over here should be moved off and another chap somewhere else should stay.

The CHAIRMAN: It would be purely voluntary on their part, would it?

Mr. JOHNSON: Yes.

Senator HIGGINS: As a man who will never grasp a subject and tries to appear intelligent when a technical term is used that he does not understand, would you mind explaining to me the term "vertical integration"? I think it was explained some time ago but it must have been explained rather poorly for me because I still don't understand it.

Dr. HANNAM: Mr. David Kirk is our economist. May I ask him to explain it?

Mr. KIRK: There is a great deal of disagreement as to just exactly what is meant by vertical integration. Many people who speak of vertical integration are talking about the kind of development that has been taking place

in the broiler production industry. The chief characteristic of that industry is that the production is being carried on under contract arrangement with the producer. In the second place, the financing and control and to a considerable extent the management of the operation of the actual production are in the hands of the contracting company or firm or individual. That may be the feed dealer, the processor of the birds or the hatchery or all three in a combined arrangement. In a sort of practical way that is what has happened in that industry, and it is being called vertical integration.

Now, in a more or less broader sense the idea of vertical integration is that the different stages of production and processing, supply and distribution and retailing are all lined together in some form or other. It can be in many different forms but they are linked together in a co-ordinated operation that is really substituted for free market processes—that is, just putting your products on the market or just going into the market to get your products whenever the occasion demands. Substituted for that is an organized, deliberate co-ordinated effort of the operations of two or more services either through contractual arrangements or through actual ownership. I mean, if a man owns the processing plant and the actual production unit of the product, then he has got the thing under his control right there. This co-ordinated linking could also be done under contract.

Senator WALL: Could I be mischievous and say that may be a development that you cannot control, unless you want to do so statutorily, because it is a result of free play of economic forces?

Mr. KIRK: In so far as that is what is being talked about—real economic efficiencies that result. I don't think anything is inevitable in the economic field but it can be argued it should be allowed to happen. However, there are many different ways and forms it can take, and this is one of the big questions—how it can happen.

Senator CAMERON: The suggestion has been made quite recently that if a form of deficiency payments is accepted in principle and put into effect, people who operate on the basis of vertical integration will not be permitted to benefit from these deficiency payments. I am wondering whether legally or statutorily this can be done, that you can deliberately discriminate between groups who are actually in the same farming operation? Have you any comment on that, Dr. Hannam?

Dr. HANNAM: I have never yet heard any suggestion as to how you could legislate to say that one agency could not have deficiency payments and another could just because of a different setup. On the other hand, we often hear suggestions that the way to do it is to limit the payments to producers or individual producers up to a certain amount of a commodity. If you set a ceiling on the amount of produce that a certain farmer may receive, that will not be enough to interest the big integrator or a mass production unit; so, therefore, it would practically solve that problem. That is one way, and perhaps much the easiest way, of solving the problem. There may be others but I do not know.

Senator STAMBAUGH: When a sugar beet factory says to a farmer, "If you raise 30 to 40 acres, say, under a contract, is that a form of vertical integration? They do the same with cabbage."

Dr. HANNAM: Some people argue that is vertical integration. Perhaps it is, because you are trying the production and the processing together. But we have had these contracts for years. Others argue that the contract between the producer and his processor, like sugar beets, is a simple form of contract that has been practised for a great number of years and is not in the class of

vertical integration. There is no question about the action that is taken, but there is a difference of opinion as to whether it properly could be called vertical integration or not.

Senator STAMBAUGH: Well, what is your opinion?

Dr. HANNAM: Well, my own opinion is that it is not vertical integration in quite the same sense as Mr. Kirk's definition implied or indicated.

Senator CAMERON: Is it not true that this is a system that Danish farmers, the most efficient in the world, have used in marketing their hogs? Their marketing agents say, "We will take so many, and what we don't take, market them the way you like"? Is there not a parallel here that might be followed?

Dr. HANNAM: Well, I suppose there is. Although I was never able to learn that there was any written contract outside of their program, that is, that all the farmers of a community own this processing plant—bacon factory, they call it, and they all send their hogs there, all of them, and they probably have for three generations. So when you talk to them about whether they do or don't, they don't know anything about anything else, they just say, "That is ours—we do that, that is all there is to it". Now, again, I suppose that is vertical integration, because the farmers own that plant, they had the farm and did the processing in their own plant. A lot of our co-operatives do carry on a form of vertical integration.

Senator BOIS: They are free to produce as much as they can?

Dr. HANNAM: Yes.

Senator CAMERON: But they only allot to take so many.

The CHAIRMAN: Senator Wall?

Senator WALL: Could we take advantage of the presence of these gentlemen and help them to clarify for us the specifics, not the general concept but the specifics of the concept of supervised credit or package deal credit? Who is to give that credit, and in what amounts, and what rates or lengths of terms, or for what purposes? What are the specifics for these general concepts which are perfectly good?

Dr. HANNAM: Would you care to answer, Mr. Lemoine?

Senator WALL: It would be very helpful if we had some specifics about the concepts.

The CHAIRMAN: Mr. Lemoine?

Mr. LEMOINE: Mr. Chairman, when we think of a package deal credit we think first of all of credit to consolidate a debt, the long debt that has been negotiated by the owners of the land and the buildings. This is part of the package deal which consolidates the debt. Secondly, with regard to long term credit, there is some rumour now that it could be extended to the federal level. The farmer after he has consolidated his debt has to produce. He also needs capital if he is in the dairy business, for instance, and wants to increase his productivity and increase his herd of cattle. This will take money. He will also need to enlarge his facilities to take care of that large herd of cattle, and needs terms of credit from five to ten years to help him build these facilities on his farm to achieve a program. Thirdly, he will also need short term credit to buy food, or things like that, to finance his operations from year to year. So this would be three types of credit.

Senator WALL: In the same package?

Mr. LEMOINE: Long term, medium term, and short term credit, would apply to the ownership of the land, to the organization of the production of this farm, and credit for the operation of his farm on a yearly basis.

Senator WALL: Have you ever given thought to the amounts that you think would be reasonable, and at what level, short term, medium term and long term? What might be the maximum amounts needed, and, for example, the interest rate that might be feasible, and so on?

Mr. LEMOINE: This is very difficult to answer. It depends on the type of operation of agricultural production, but generally speaking, we do think now in 1959 it is necessary to have an investment of about \$25,000 to \$30,000. That is long term credit. With regard to medium or short term credit, this cannot be specified unless you know the type of production that the farmer wishes to have on his farm. It depends greatly on the type of production he wants to organize on his farm.

Senator HIGGINS: I want to ask a question. In the olden days in England the farmers used to bring their wheat to the only mill in the district, and the owner of that mill turned the wheat into flour and handed it back to the farmer, but kept so much for doing the work. I understand that the same obtains in French Canada; they bring the wheat into the seigneurie. Is that the old form of vertical integration, and is that the start of it? I want to know the meaning of vertical integration, because the term has been used three or four times and I do not want to look stupid if anyone wants to ask me the question.

Dr. HANNAM: I would hardly say so, because the miller and the farmer are each independent businessmen, and the farmer took his grain in there and paid for it either in dollars or kind, that is, he left part of the wheat for the grinding process. Those were not the days when the large corporation was the giant corporation and moving into a great many fields and making all the decisions covering all of their operations, you see.

There is quite a difference. You may be interested to hear that I was told by Indians, representatives of India, that there is a great deal of that very thing going on in India today,—a farmer taking wheat to be ground in a small mill.

Senator HIGGINS: Is it possible that the big miller or the contractor would supply the small farmer temporarily, and when his crop is grown he will hand in to the miller all his crop?

Dr. HANNAM: If this were done,—I don't know that any vertical integration operates in cereals, in grains. Apparently it does not seem to have arrived into that field. There may be a good reason for that,—that it is not a very profitable field. But where a big farmer owns hogs and gives them to a farmer, and also supplies all the feed, the farmer is more or less of a hired man. He is looking after the hogs, and by contract he receives so much per hog, or so much selling price or something. That is the type of thing that is usually referred to as "vertical integration."

Senator HIGGINS: In Newfoundland, for instance, a fisherman, in starting out, would go to a small merchant, called a planter, and the planter supplies him with food from April to November. Then he hands in all his fish to the planter, and the merchant or planter sells it at whatever price it may be, pays him the market price; takes a chance on selling this out with a profit. I was wondering if any of that happens here?

Senator MACDONALD (*Queens*): I wonder now if we could get back to the place where we started, more along the line of the family farm credit. I notice, in reading over a copy of Dr. Hannam's brief that he gave here in 1957—March, I think it was—it contains one paragraph which I will read: "In all our thinking we are first of all concerned with a fundamental principle which appears in an official policy statement of the Canadian Federation of Agriculture".

And this is in quotes: "To maintain a social and economic pattern for Canadian agriculture in which the family farm will be the most representative and significant type of farming enterprise."

Now as one of the things that would help that family farm. I suggest we might get from these men their ideas as to what should be put into farm legislation, and start with Nova Scotia. We have some idea of what changes have been made in their act at the last session of the legislature. I don't know if you gave us the amount you have on loans there now.

Mr. JOHNSON: The amount available today? We asked for a limit of \$50,000 to any one farmer, but the limit was taken off altogether.

Senator MACDONALD (*Queens*): What about the amount for machinery, equipment?

Mr. JOHNSON: There is no limit set. There was no limit set of any amount. It would be up to the Board to see that the necessary capital would be made available—two-thirds of it.

Senator MACDONALD (*Queens*): I suppose, if we are thinking of amendments to the federal statute, we ought to keep in mind that more money now is required proportionately for equipment and machinery than we have had available in the past. That would have to be made available to a lot of these economically small units to make them economic, so that they can perform economically. I wonder if you have some suggestions which you think should be considered in re-drafting farm credit legislation.

Senator TAYLOR (*Westmorland*): May I first ask this question of Mr. Johnson? Is there not a limit for individual farmers or partnerships?

Mr. JOHNSON: No.

Senator CAMERON: Are there local boards, and if so, who are on them? What kind of people are on the boards?

Mr. JOHNSON: There are seven or eight altogether. The management committee consists of three, and there is an advisory committee of probably seven or eight.

The CHAIRMAN: We are having Mr. Haliburton up here tomorrow. He probably would explain that from a Government point of view.

Senator GOLDING: Mr. Chairman, I would like to ask Dr. Hannam this. Your organization has approved of this brief that you submitted here. What do you envisage in this brief in reference to, say, a person that has a small farm, who makes something on that farm, and supplements it by working at something else? Is it your idea to take him out of that position, so that that farm can go to some big farmer, and this fellow have to find his living in some other occupation altogether? Is that it?

Dr. HANNAM: If you are asking definitely about the part-time farmer, I would say no, we are not as much concerned about him as we are about others, because between his small farm operation and his city job—if you like—his income may be satisfactory for his family. But we are concerned about the farmer who has no part-time job somewhere else, and is probably a very good worker and a fairly good manager, and yet he is on a farm that cannot provide for his family.

Senator GOLDING: Yes. Well, I am glad to get some of these explanations, because, in listening to the brief, I could picture in my mind developments where people would almost become wards of the Crown, just about as the Indians are. It would go on from step to step, and step to step. That is far different from what it was, you know, when we had to rustle for ourselves; and I am glad to hear you say that it isn't the intention to move somebody out of their position because of a full-time farm program.

Mr. LAVENTURE: I think, Dr. Hannam, it was agreed that that man be not disturbed. We agreed that he was an asset to the rural community,—that he was an asset to the community socially.

Dr. HANNAM: Yes. We had it covered in the clauses I read towards the end of our brief, when we said, in number 6 clause:

“The possibilities of developing local non-farm industry, or industry related to farming and forestry, should be carefully investigated, in the interests of bettering rural community life by stabilizing population and providing off-farm employment opportunities.”

Senator HIGGINS: Besides the farm work?

Dr. HANNAM: Yes, or seasonal.

The CHAIRMAN: I wonder if we can have an expression of opinion from each of the gentlemen from the different provinces who are represented here, as to what is considered an economic unit in their province,—starting out with Mr. Lemoine there—and also give the product that is generally produced in that area, whether livestock, or cereal grains to make up that economic unit.

Senator STAMBAUGH: Do you mean the value of the farm or the number of acres, Mr. Chairman?

The CHAIRMAN: What will produce a good living for a farm family in that area.

Senator STAMBAUGH: In bushels, cattle and so on?

The CHAIRMAN: No, in dollars and cents. Mr. Lemoine.

Jean B. Lemoine, Montreal, President L'Union Catholique des Cultivateurs, Quebec:

Mr. Chairman, in the province of Quebec the most important farm production at this time is dairy farming. I might say that in the last three years Quebec is the province that produced the most milk of any province of Canada. I would say that an economic unit will be operated by a man who has a herd of 40 to 50 head of cattle, of which at least 20 will be producing milk and they should be producing from 150,000 to 200,000 pounds of milk a year. To do that, generally speaking, you will have to have a farm of about 200 acres with a fair type of soil and well managed.

On the other hand we also have various special crops such as market gardening, and crops for canning, the production of which is increasing all the time because of the development of urban centres and increasing urban populations.

In that case it is altogether a different set-up.

I know of some farmers who are in the truck gardening business on the Montreal highway and they own 50 acres of land and only use 30 acres of the 50. But they are able to take in a gross income of from \$30,000 to \$40,000 a year, depending on the type of production. As to the size of the farm and the amount of capital investment required I cannot visualize an economic unit in the province of Quebec with an investment of less than \$25,000 and up to maybe \$50,000 and more depending on the help available.

Senator McGRAND: Mr. Lemoine, you have been speaking of a farm close to an important marketing area. Suppose now that you were to talk about a farm in the county of Megantic or around Temiscouata. What is your opinion of an economic unit in that area?

Mr. LEMOINE: Well, Senator McGrand, this is an altogether different story. I thought the chairman wanted to have what would be an agricultural economic

unit in a marketing area. However, if you travel down to Temiscouata the problem becomes entirely different. Part of the lands in those areas should be reforested, and we had discussed the possibility of farmers having their main income from the operation of a wood lot combined with some type of dairy production or something else like potatoes, and that may be in 10 or 15 years from now, if there was an aggressive policy of land use which will bring about reforestation of half of those areas, forestry products would provide the main source of income from some parts of these areas.

The CHAIRMAN: Would you give us your opinion on this, Mr. Bentley?

J. M. Bentley, Edmonton, President, Alberta Federation of Agriculture:

It is rather difficult, Mr. Chairman, to say, certainly at least on an acreage basis, what an economic unit should be in Alberta because, as in Quebec, it would depend on the type of agricultural production you were in. But generally speaking, on an investment basis I would think that in Alberta you would certainly have to have in excess of \$35,000 invested in farm equipment and so on for a minimum. From there on it would depend on the operation you are in. Certainly in many cases the investment would run to between \$50,000 and \$60,000. I think the members of the committee are all aware of the increased cost of farm land and also farm machinery and livestock under present-day conditions and that is why such an investment has progressively increased over the years.

As in the province of Quebec, we have areas where we have cultivation, where farmers are growing potatoes, say around Edmonton, for instance, with 200 or 300 acres in potatoes. These people have a very large investment in equipment and some of these machines cost then \$15,000 to \$16,000, which is a large investment. They are in a type of production that you do not usually think requires a good deal of investment but that is the trend in that kind of production. We also have dairymen who are operating on smaller acreages. They buy a lot of their feedstuffs from other farmers. In a grain growing area the number of acres in a farm is something altogether different because in that case we are in a specialized field.

The CHAIRMAN: Thank you, Mr. Bentley. Would Mr. Boden from Saskatchewan give his opinion now.

Mr. E. A. Boden, Cut Knife, Saskatchewan, Director, Saskatchewan Wheat Pool:

Mr. Chairman, I was hoping we might get back to this farm credit question.

The CHAIRMAN: Well, you could bring that in in your discussion.

Mr. BODEN: As far as Saskatchewan is concerned I would say that an economic unit could be described in the same words as Mr. Bentley has described it. If you think of wheat production alone, a two-section farm of 1,200 acres would be an economic unit, I think, provided you figured on a return per bushel of \$1.60 at the shipping point for No. 1 wheat. It would depend on the price, of course. A two-section farm is an economic unit but some people argue it should be a little more. In respect to livestock it is an entirely different question and a very hard one to deal with. Personally it is our opinion that for hog production an economic unit would require a herd of 600 head. As to cattle, I am not prepared to say but it would at least be 100 head.

Senator STAMBAUGH: You spoke about units that owned up to 600 hogs or 100 head of cattle.

Senator STAMBAUGH: You spoke about these units of 600 hogs or 100 head of cattle. Is it your opinion that it is necessary for them to raise their own hogs and cattle or go out and buy feeders? I would think that if they buy them principally it would hardly be farming; it would be a commercial venture.

Mr. BODEN: What would you call a man who is feeding cattle?

Senator STAMBAUGH: I know a man who feeds cattle and he raises very few cattle. He buys most of them. He has a pretty big farm and very large pasture, and is a pretty successful operator, but, on the other hand, I know many other people who raise nearly all their own hogs and nearly all their own cattle, and they also are making a success out of it, but on a much, much smaller scale.

Mr. BODEN: Smaller than 600 for hogs?

Senator STAMBAUGH: Yes, if they raise their own feed, which, to my mind, is what the real honest to goodness farmer does.

Mr. BODEN: Well, 600 is an economic unit.

Senator STAMBAUGH: Even if he raises his own feed?

Mr. BODEN: Yes.

Senator TAYLOR (*Westmorland*): That is, if he has nothing else as far as livestock is concerned?

Mr. BODEN: Yes.

Senator STAMBAUGH: It is 600 hogs or 100 home fed cattle?

Mr. BODEN: Yes, not a combination of both.

Senator STAMBAUGH: Yes, I think that is probably near it. It sounds all right.

The CHAIRMAN: With regard to credit, Mr. Boden what do you say?

Mr. BODEN: I notice a number of senators seem to be particularly interested in this. Saskatchewan has just brought down an act. Probably you are aware of it. It is called the Family Farm Credit Act. I am sorry, but I have not many of these details with me, but I can give you a rough idea of what they have in mind. This one here is a 30-year term, and the applicants are from 21 to 40 years of age. It is \$25,000 maximum, and it is based on 85 per cent of the total value of whatever they are going into. It is going to be administered by the Co-operative Trusts Company. Applicants must have 20 per cent equity of their total assets. They may already have this—several thousands of dollars, maybe—but they are expected to have 20 per cent of their total valuation.

Senator TAYLOR (*Westmorland*): That would include livestock and equipment.

Mr. BODEN: Yes, and machinery. It is going to be very carefully screened. They are going to use the agricultural representatives for advisory as well as supervisory assistance. All loans will be insured. This insurance will cost them roughly three quarters of 1 per cent, and it means that if something happens to the applicant the loan is cancelled.

They are raising this money in this manner; the Co-op Trusts are selling debentures, hoping to get money at 4½ or 5 per cent, and the Government is matching it dollar for dollar up to a maximum of \$10 million. The Government's hope is that it will dovetail into, possibly, a federal long-term credit plan.

The main purpose of this particular Family Farm Credit Act is to facilitate father to son transfers, which has suffered a lot of difficulty over the years. That is why it is called the Family Farm Credit Act.

Now, I would like you to bear in mind that it is up to 40 years of age. They have 30 years in which to retire. If an applicant was 42 years old he would only have 28 years, assuming 70 years to be the average age of retirement.

Senator STAMBAUGH: If he was 42 years old he would get a credit for 28 years, and if he was only 40 his credit would be for 30 years?

Mr. BODEN: Yes. The preference would be given to those between 21 and 40.

Senator CAMERON: Is the advisory service just limited to what the agricultural representative can give?

Mr. BODEN: No. The Co-op itself will be administering it, but it will use the Ag-Reps to give assistance after.

Senator CAMERON: In other words, there will be somebody passing on the loan who has some financial experience.

Mr. BODEN: Yes.

Senator STAMBAUGH: I would like to direct a question to Mr. Bentley on this, too. I think in Alberta there is something similar, which has been in force for a couple of years.

Mr. J. M. BENTLEY: In Alberta they have what is known as the Farm Purchase Credit Act, and its application has been rather limited to date. We have felt all along that the maximum loan that the Government would give under this program of \$7,500 is inadequate under present-day conditions. Similar to Saskatchewan, I think the applicant had to pay 20 per cent of his own equity in the proportion, and I think the total value that was given of the farm was up to \$20,000. We have felt all along that that was insufficient under present conditions.

The seller has been reluctant to sell under this Farm Purchase Credit Act because he had to turn over the deed of his land to this provincial authority, and he did not get all his money. He had to be paid along with the Government, and he could lose up to 10 per cent of what he had sold it for, and he was very reluctant to do that.

In regard to the way it is operated, apparently they have a provincial board which is an overall board, and in each municipality which comes under this scheme they have an educational board. Not every municipality has taken advantage of this, but they do have a local board which does the screening of the applicants, and it knows the condition of the land and whether the price is favourable or not. That is the way they handle it at the local level.

Senator STAMBAUGH: Do the local municipal boards have any financial responsibility?

Mr. BENTLEY: I understand they do now. I am not an authority on this. I do not know whether Senator Cameron knows more about it than I do, or not, but I believe the municipalities have some financial responsibility under this Farm Purchase Credit Act.

Senator STAMBAUGH: I thought they had raised that maximum of \$7,500 at the last session of the legislature. There was talk of that.

Mr. BENTLEY: I must admit that I was away from Alberta at the time this went through, and I am not aware of just what has taken place. I understood that they had amended it considerably.

The CHAIRMAN: Mr. Grant, would you speak for New Brunswick?

Mr. GRANT: Mr. Chairman, I was surprised When Mr. Lemoine spoke because I did not think I could agree with him so well. Sometimes I don't agree with him at all. I feel he outlined the case adequately for New

Brunswick in so far as dairy farmers are concerned. I do not think an economic unit could be considered as being less than 20 milking cows, and there should certainly be another substantial source of income. It might be hogs or poultry. Of course, the wood lot is very important in Nova Scotia and New Brunswick. As a matter of fact, in many areas it is even more important than the farms.

The CHAIRMAN: Do you get any credit on your wood lot when you start one? Do you get any credit to enable you to build a wood lot?

Mr. GRANT: I don't think any of the Land Settlement or the Canadian Farm Loan Board regulations permit financing on the basis of a wood lot. I think that is true, is it not?

Senator TAYLOR (*Westmorland*): Yes.

Mr. GRANT: That is a definite hardship because in many areas the land is much more suited to forestry than to farming.

Senator McDONALD (*Kings*): That has been one of the weaknesses in the federal statute as well.

Mr. GRANT: I think that is true, Yes.

Senator McGRAND: You have said that the requirement is 20 milking cows for the family farm unit. Do you mean each farm in New Brunswick that you would consider to be a self-supporting family unit should have 20 cows or are you referring to certain sections of the province that is reserved for dairy farming?

Mr. GRANT: That is right.

Senator McGRAND: You are referring to the dairy section?

Mr. GRANT: Yes. Then there would be other areas that specialize in, say, potatoes. I would not be able to tell you what an economic unit would be in that respect. There may be other areas where fruit is grown, and there are still other areas where fishing and farming are combined.

The CHAIRMAN: If you have a large enough unit in any one of these items such as fruit growing or potato production can you make a good living from that?

Mr. GRANT: It depends on the management and on the markets. There are people doing it.

Senator McGRAND: Don't you think the number of areas in which you could have 20 milking cows would have to be fairly restricted because of the threat of over-production that would result in milk and dairy products?

Mr. GRANT: Oh, yes, and also the productivity of the soil in certain areas has to be taken into consideration.

Senator McGRAND: Yes, but you expressed your opinion based on a restricted area in the province, did you not?

Mr. GRANT: Yes.

Senator McGRAND: Well, I would like to get an opinion on the general outlook of the province and not just selected areas.

Mr. GRANT: Mr. Chairman, I was attempting to point out that on other farms there would be sidelines which in many cases would be of more importance than the dairying.

Senator McGRAND: What proportion of the province would you say would be devoted to the dairy industry? Would you say 10 per cent, 8 per cent, 5 per cent, or just what?

Mr. GRANT: If you are talking about acreage it would be pretty small because in Nova Scotia and New Brunswick there is a substantial percentage of the land in wood and land that is barren.

Senator McGRAND: Then the economic unit of 20 milking cows would not apply to New Brunswick generally but only to a small proportion.

Mr. GRANT: It would only apply in reasonably good districts.

Senator McGRAND: What about the rest of the province?

Mr. GRANT: In many areas throughout the rest of the province the trend is definitely to forestry. As a matter of fact, I understand many agricultural representatives in the province are brushing up in forestry and have taken on forestry specialists with the idea that in those areas they will push more forestry than farming.

Senator McGRAND: A few years ago in the province of New Brunswick when the regional high school system started each school was supposed to have a wood lot, and forestry was to be given some consideration in the boys' curriculum. Some attempt was also to be made to give them an agricultural education. I wonder what progress is being made in teaching them forestry? It is my opinion that the amount of attention given to this subject in these regional high schools in New Brunswick is down to nil.

Mr. GRANT: Oh, I think there is an increasing amount of attention being given to forestry, Mr. Chairman. I am sure that is true in Nova Scotia as well.

Senator McDONALD (*Kings*): The former Minister of Agriculture for New Brunswick is sitting here and he looks rather amused. Why not let him tell us? I am sure Mr. Grant would like him to.

Senator TAYLOR (*Westmorland*): Let us take the case of two farmers each of whom has enough land to support 10 cows. What is happening now is that both of these farmers are going out of business because there is not sufficient income to keep their families going. I think what Senator McGrand has in mind is that, without increasing the population of cattle in the province, if each farm unit had 20 cows, along with perhaps some hogs and chickens, it would be an economic unit. Then, again, as has been said, there are various areas where the soil conditions are not suitable to dairy farming. There are so many variation and differences in soil, and so on, that it is really difficult to determine just what an economic unit is.

Senator McGRAND: I understand that last year in what we considered to be the best dairy section of New Brunswick, which lies between Moncton and Saint John, the farmers were restricted to so many days a week when they could ship milk. Is that not right?

Senator TAYLOR (*Westmorland*): That is right, in certain periods of the year.

Senator McGRAND: There is not much opportunity for expansion in milk production in New Brunswick. You soon run quickly into a situation of over-production.

Senator TAYLOR (*Westmorland*): I don't think anybody here is suggesting greater production of milk. It is a case of establishing a unit which can be made an economic success, a going concern, which will give a living to the family unit.

Senator McGRAND: We are discussing the problem of a family unit as it applies to New Brunswick, and the statement has been made that 20 cows would be a suitable herd for a family farm. I maintain this would be out of the question in the province of New Brunswick because you would have to restrict it to certain areas. What about the other 80 or 90 per cent of the province?

Senator TAYLOR (*Westmorland*): That is a different proposition. When you go up the St. John River you find an absolutely different type of production.

Senator McGRAND: Perhaps we should have a separate meeting for Maritime interests.

Senator TAYLOR (Westmorland): I was going to add something, but I guess I won't!

The CHAIRMAN: Before Senator Wall asks the question, I would like to ask Mr. Ferguson from Ontario to give us his opinion on this question.

Mr. FERGUSON: This is rather a difficult question, and I have listened to the discussion before with very deep interest. As a matter of fact, in our committee this morning I raised this question and did not get an answer, so I am hardly in a position to give a very intelligent answer this evening. Coupled with that, in Ontario some of us who happen to be here on this delegation have been almost completely subdued with the work of land acquisition in the last few years and have not had too much contact with general agricultural problems. However, I think that in connection with units as they would appear in Ontario, of course, we could suggest units of every conceivable type of crop you could possible think of. The great multiplicity of commodities grown in Ontario makes it very difficult, and there is a different set of circumstances for each group, such as tobacco, fruit, or livestock farming; they all have a specific, different requirement; creditwise, as well as size, acreage, and a number of factors. I do think as far as our farm organization is concerned we feel that in Ontario the general need of farmers in order to maintain these units in any of the several types of operations, there is a very definite need for this long term credit which has been mentioned here tonight upwards to 20 to 30 years of duration, and we are thinking in terms of probably a \$20,000 limit with low interest. We also feel, too, that there is more and more a need for this credit to be applicable above the 30 year age limit. There is a period in there after the junior farmer loan, for instance, from 30 to 40 years, where there seems to be a need for long term credit. We take this view because, and I don't think it has been mentioned here tonight, farming differs from a number of other enterprises in that it has to be re-financed very frequently during the passage from one member of the family to another, and we think this is quite a problem.

Now, to come to actual details as to what I might think would be an economic unit for beef cattle, hogs, that type of thing, would be simply a guess on my part at this particular time, and I would just as soon not do it. We do have our economist here, and I could put him on the spot. He has been working with me. He may have some figures, and if you would care to have Mr. Belyea enlarge from the statistical point of view I would be very happy if you did.

The CHAIRMAN: Mr. Belyea?

Mr. BELYEA: I find it an extremely difficult question to answer. As Mr. Ferguson has suggested, I have not been associated very closely with production economics in recent years. However, there is a source of this information which I feel should be readily available, and I refer to the work done by the Farm Economic Department of the Ontario Department of Agriculture. I believe Dr. Patterson and his associates have compiled a great deal of cost studies relating to the question which has been directed to us. I think that most of it is in a pretty up to date condition, too. The only figures that I can remember, and these are not very clear in my memory—I recall five or six years ago it was widely advertised at various expositions in Ontario on the basis of studies done by the Department of Agriculture that it would cost about \$36,000 to establish a growing dairy operation, and I suppose that since that time the figure would have increased to perhaps \$40,000.

As far as acreage is concerned, I would think it would be very variable, because while the average farm may run from 125 to 200 acres it is possible with such practices as zero grazing and with technological advances to farm intensively on even as little as perhaps 80 acres, with perhaps 20 to 25 milking cows. I am not up to date on this, but I feel it is possible. Market gardening, for example, I suppose an acreage between 10 or 30 acres might form an economic unit in this case, although some are very large and are in the 25,000 acres class. But I suppose it costs from \$25,000 to \$30,000 to get established in marketing gardening. Tobacco, perhaps, \$125,000, to purchase a going tobacco operation of say 40 to 60 acres.

Senator McDONALD: May I ask how much an acre for tobacco?

Mr. BELYEA: I would think it would vary from \$600 to \$700 an acre.

I think you are all familiar with the fact that a great many of the modern poultry operations are conducted on very small acreages. You can operate a broiler plant on one or two acres, I suppose, and run a very successful operation. It costs a great deal of money—I have no idea what it would cost, except possibly \$50,000 to get you going.

These are all very hazy figures, sir, and I can only report that the information is available in some form, and it could be made available.

Senator CAMERON: Mr. Chairman, mention was made several times in connection with 30 and 40 year credit. It must be at low interest rate. My question is, what is the consensus of opinion as to what this rate should be and who is to provide the credit at this low rate of interest?

The CHAIRMAN: Have you an answer, Dr. Hannam?

Dr. HANNAM: Well, it is becoming more and more obvious that many of the larger financial firms are not going into farm loans, and accordingly it becomes more and more obvious that farmers are going to look more to state auspices for farm credit. It seems almost as simple as that.

Senator CAMERON: At what rate? I am curious about the rate, too.

Dr. HANNAM: We have a special farm credit policy of the C.F.A., where we have asked that the low rate should be at the cost of the money for supervised credit.

Senator MACDONALD: That is very well put, with today's conditions.

Senator WALL: Nothing for administration?

Dr. HANNAM: No, for supervised credit, I think that State auspices assume the administration.

Senator MOLSON: That could hardly be considered a low interest rate, could it,—at least, in the historical sense?

Dr. HANNAM: You will understand why we did it. We said that the State should assume the administration, and we were not asking for the farmer to be subsidized by a lower interest rate, but we said we thought the rate ought to be nothing more than the cost of the money.

The CHAIRMAN: I will ask Mr. Ferguson to speak at this time.

Mr. FERGUSON: Mr. Chairman, I think I should put this in here, because it has been behind the thinking in Ontario on the small farm credit. We find that our Canadian boys are running up against long-term credit that is being obtained by immigrants coming in here,—that is supplied by their home lands, and is being put over here on a long-term basis, at 2½ or not over 3 per cent. I have understood that in some circumstances there was no repayment of capital in the first three years, and we feel that it is rather embarrassing to our young men to have to face up to this kind of competition. Perhaps we are justified in asking for special consideration.

The CHAIRMAN: Can't we go over there and get some of that money!

Senator WALL: Surely this is not a serious proposition in the form of a threat or problem to our Canadian situation.

Mr. FERGUSON: When Canadian boys do not seem to get this long-term credit at less than 4, 5 or 6 per cent, it poses quite a formidable problem. I am not objecting to them doing it. That is quite all right. But, we feel that if it is available for these immigrants, like monies and like interests should be available to our own citizens, if we want to keep them in operation equitably. I thought that I should throw that in, because it is something which has been discussed quite a lot in some of our Ontario meetings recently.

Mr. LAVENTURE: Some of these people have come into communities and bought the best farms, and we can't figure how they can do it. But it is long-term credit at low interest.

Senator WALL: I was going to make the observation that part of the documentation of the case for the small farmer and the massive state enterprise hinges also on this off-farm income, and we should kind of call a draw on that, because there is really no estimate of the amount of that. We have a hazy notion that half of the farmers work six months of the year—rather, half of the 130,000 farmers are working six months of the year off the farms,—and I think it would help if there was some clear estimate of that income. I think that was the problem that was raised. Then, as part of exhibit one, page 9, I cannot remember—what is that sample survey that Dr. Hannam was referring to? Dr. Hannam referred to a sample survey conducted by the Dominion Bureau of Statistics, and it comes right after this “non-farm work”. Is that what it relates to, or does it relate to something else? It follows sequentially in your brief, right after the explanation of the non-farm income.

Mr. KIRK: The sample referred to is, I understand, about a two and a half per cent of the total farm population. That has been selected by the Dominion Bureau of Statistics.

Senator WALL: What are they after?

Mr. KIRK: They are after a very wide range of information about the whole production enterprise of the farmer, and his capitalization, and his income, and his family income. There are two full books of questions. It takes about two days to enumerate one farm; and there are many things in this survey besides this particular figure which we mentioned.

Senator STAMBAUGH: I believe it is a spot check right across Canada.

Senator HIGGINS: In the last page you referred to the “increasingly discriminatory effects of a real property tax”. Is that general, or does it refer only to isolated districts? We heard that the real property tax bears very heavily on the farmer.

Dr. HANNAM: I would say, generally, we heard from all of our provinces, particularly concerning the cities; the assessment is more acute in areas around cities, where the farmer's home and his farm are in a section where the people are moving out in large numbers with children; they create the new school problem and very much run up the school cost. But then they are only assessed on their home. Their business will perhaps be in the city,—most of these people. That is where it is most acute. But still we hear from our provincial federations that this problem is general in farm circles.

Senator MOLSON: May I ask a question about this credit discussion? It seems quite apparent from all we have heard that credit is one of the very large problems. Now in order to bring it into focus with what has been said about the need for credit, could we just run over, perhaps for the record, what credits are available today which are, we know, inadequate. There are

a variety of credits throughout the country that are available, but I gather the capital sum is too low, and in most cases the term is too short, and the interest is obviously too high, and so on. Could we clarify that?

Dr. HANNAM: Well, Mr. Chairman, there are three federal agencies: Federal Farm Loan Board, Farm Improvement Loans Act and Veterans Land Act. A great many of the provinces have their own farm loans.

Senator MOLSON: Excuse me. Those federal acts are guaranteed loans; they are not direct loans. For example, the Farm Improvement Loan Act loans are made by the bank?

Dr. HANNAM: That is right. The other two are direct.

Senator MOLSON: The Farm Improvement Loans are by the banks only and are guaranteed by the federal Government.

Dr. HANNAM: Yes.

Senator TAYLOR (*Westmorland*): They are not wholly guaranteed.

Senator MOLSON: Partially guaranteed.

The CHAIRMAN: Farm loans are made against real property.

Senator MOLSON: Then there are provincial acts, Dr. Hannam?

Dr. HANNAM: There are the provincial acts mentioned tonight. Quebec has a very good provincial act that was not mentioned tonight, and there are others.

The CHAIRMAN: And the co-operatives have credit schemes.

Senator BOIS: Sometimes the co-operatives have credit unions; besides the credit unions, many of them give credit on their own.

Dr. HANNAM: Mr. Chairman, in view of the comments made tonight by our members from the provinces with respect to capital investment from farms, I thought perhaps the committee would appreciate this note, that the average investment per farm in 1951, for New Brunswick was \$6,000; for Quebec \$10,400—Mr. Lemoine said tonight it would be perhaps close to \$25,000 to finance such a farm—the average in Ontario, Manitoba and Saskatchewan is said to be \$17,000, and for Alberta \$21,200. Those are the figures according to the 1951 census. Now, if those were the average figures in 1951 they certainly will be considerably higher today, perhaps by 50 per cent, but they are still very much lower than the estimates that were given by our men tonight, which indicate the small farm problem.

Mr. LEMOINE: Mr. Chairman, may I say that we had a very good farm credit act in Quebec, but there is one weakness in the act: we have not been able to convince our provincial government to raise the maximum loan that could be made above \$8,000. This is not sufficient. That lack of credit has its effect on the structure of our farm economy, because we have less than 40,000 farms which can qualify as commercial farms. We take as a yardstick for the value of the commercial farms as against other farms, a minimum gross income of \$2,500 a year. This is not exaggerated. It is an indication of how much credit is needed for a province like Quebec to build more economic units—to make 60 or 75 per cent of its farms economic units.

Then, in Quebec we have an interest rate of $2\frac{1}{2}$ per cent, but if the capital amount was increased, let us say to \$20,000, I don't know what the interest rate would be. One thing is sure, at that time we may have to consider supervision to make sure that the farmers make good use of the credit that is available to them.

Senator TAYLOR (*Westmorland*): Mr. Chairman, I would like to ask Dr. Hannam through you to give us an interpretation of what he means by the second paragraph on page 16 of his brief.

Dr. HANNAM: You mean the corridor question?

Senator TAYLOR (*Westmorland*): Yes.

Dr. HANNAM: I would prefer to have Ontario Federation explain that. Mr. Belyea.

Mr. BELYEA: Mr. Chairman, I think you are all aware that Ontario is becoming more industrialized, almost with each passing minute. Part of this industrialization, or perhaps all of it, calls for the extension of public services such as trunk hydro transmission lines, gas and oil pipe lines, highways and all matters of transportation services. With respect to a metropolitan area like Toronto these various extensions of services all converge on Toronto. Instead of any planned progress, they cover vast areas of land around the city; a lot of this land is now used for farming purposes, but is of considerable value for other purposes such as commercial and residential uses.

It seems to us that if it were possible for some government agency to purchase strips of land over which these extensions of public services might travel, there would be much less waste of land.

I think it will be apparent to all that the way these public services now proceed over wide areas of land, they depreciate that land to a considerable extent. Although this is sometimes hard to establish, they sterilize a large area of the land for the development that I mentioned. If these services could be concentrated within a corridor, say a mile in width, which might be used for recreational purposes, if you like, or a kind of green belt, then there would not be the damage done that is being done today.

We visualize in the future there will be no let up in this extension of public services. The highways themselves cause a particular problem because of the extent to which they do irreparable damage to productive farm land, some of which, because of its relative position to markets, is extremely valuable and productive.

What we are proposing here is that somebody purchase a corridor and let these services all come through it. This is a controversial question, and we are merely offering it as an area for study.

The CHAIRMAN: Thank you very much. Are there further questions?

Dr. HANNAM: May I on behalf of the Manitoba Federation of Agriculture file a brief for your record.

The CHAIRMAN: Yes.

Dr. HANNAM: This second matter is not necessarily for your record. This is the farm credit policy on agriculture, which you may have for the use of the committee. It gives information as to how we think the Farm Improvement Loans ought to be improved for the benefit of the Canadian farmer.

Senator TAYLOR (*Westmorland*): Mr. Chairman, I would like to move a vote of thanks to Dr. Hannam and his associates here representing the various organizations across Canada for the fine presentation and the courtesy they extended in answering questions. I personally appreciate very much this brief because it is pretty much along the lines that I approve of and for that reason I heartily agree.

I would like to move a vote of thanks.

The CHAIRMAN: Thank you very much, Senator Taylor, I am sure the entire committee will agree with your motion.

The committee adjourned.

Ottawa, Thursday, May 14, 1959.

The Special Committee on land use in Canada met this day at 10.30 a.m. Senator Arthur M. Pearson in the Chair.

The CHAIRMAN: Honourable Senators, we have a quorum, so I think we should try to get started on time.

We have here this morning the Honourable Mr. Haliburton, from Nova Scotia Department of Agriculture, who will deliver a brief on land use pertaining to the small farm problem. Mr. Haliburton, would you give a little outline of your accomplishments, your degrees, if you have any, and other qualifications?

Hon. E. D. Haliburton, Minister, Nova Scotia Department of Agriculture and Marketing:

Well, I have a degree in Arts. I started in as a newspaper reporter, but when I was quite young I thought I would be happier farming. I was a neighbour of Senator John A. MacDonald when I first began. We called ourselves neighbours because we were fifteen miles apart. I might say that I started on a very small farm, so I eventually had all the experience that goes with a small farm and its problems. I have been farming in the Annapolis valley since 1923 or 1924, so that I can say that I have had about 35 years experience in trying to making a living on the farm.

Now, if the committee approves, I will skim through our brief, and at any time any of you want to make any comments you might stop me, and we can elaborate on the point.

Senator HIGGINS: Don't you think you had better finish it, as we did last night, and then we can ask questions?

Hon. Mr. HALIBURTON: Well, you can do a little of both; I don't mind being interrupted. This brief, I might say, was prepared by my department. It is in the way of my thinking, but I did not do the actual writing.

The Nova Scotia Department of Agriculture and Marketing welcomes this enquiry into land use in Canada and trusts that its impact will be of favourable and lasting benefit to the agricultural industry.

Your decision to devote particular attention to the small unit is most timely. Economic developments in the last quarter century have seriously endangered the existence of the small farm unit, and how to secure, for those people operating such units, economic opportunities and reasonable living standards, presents many and varied problems. I do not envy you your task but, realizing the composition of this committee, I am sure it will be well done.

My presentation here, today, will follow closely the general outline set forth by your chairman and, although some reference will be made to the general aspects of land use, particular emphasis will be given to the small unit which is numerically dominant in Nova Scotia.

First, as to extent of the small farm problem. Although it is very difficult to arrive at a neat and accurate definition of the small farm, the concept is familiar to us all. On the one hand, we have the so-called "twilight farm", which provides more ideal living conditions for the industrial worker and which enables him to use his leisure time to better advantage. The number of such farms is steadily increasing but does not concern us yet as a problem in agriculture. Of greater concern is the large number of farmers whose incomes are insufficient to ensure them reasonable living standards. In some areas this situation is more acute and I can refer to Nova Scotia, and the Maritimes, generally, as having a high proportion of such people.

I believe that in establishing the concept of the small farm in terms of income, emphasis should be placed on "cash" income. We are sometimes prone to attribute considerable importance to "income-in-kind", and rightly so. We are living, however, in an age where the actual need for cash is a pressing one, and living standards to a large degree are gauged by actual cash income.

In Nova Scotia our total cash income from the sale of farm products is some \$42,000,000.00, while "income-in-kind" is established at \$10,000,000.00, or less than 25 percent. It is, of course, additional to the \$42,000,000.00. A major portion of this "income-in-kind" is attributed to house rent. Even though we recognize "income-in-kind" as a significant factor in the standards of the small operator yet it does not erase the basic problems that exist when considering such a unit.

I referred to Nova Scotia as having a large proportion of low income farmers. Table I gives some picture of this situation, in terms of sales of farm products per farm. The figures used here are from the 1951 census, because the data provided at that time are more complete in this regard.

Although it is true that some change has taken place between 1951 and 1956 in the number of farms and, possibly, in income, the situation has not improved very materially; in fact it has not improved at all. The data here indicates that out of 23,500 part-time and full-time farms, 88 percent had sales of farm products of less than \$2,500.00. The situation for the four farming categories is set forth in this table, and is quite self-explanatory. It will enable you to grasp the significance of the problem. In some of the farming categories described, the situation is better than in others, and a more detailed study of farm categories could shed light on our present problems and point out ways of correcting them.

I might say here that I want to impress upon the committee that this \$2,500.00 is a gross sales figure. There are men who are presumably living on the farms and not employed in industry, although our census figures do not give us an opportunity to determine just what the situation is. The next census is going to differentiate between the income earned off the farm, which would take in the so-called "twilight farmers" who work in industry eight hours a day and then come back and produce on their farms. We will then have a much better picture. This whole business of averages does not actually convey very much. If you took Field Marshal Montgomery and an ordinary soldier of the British Army, and averaged them as to features typical of a leader, you would not get any kind of a picture. In fact, these averages and figures only give some indication, and you can't take them very literally. But I want to point out that a man with these gross sales of \$2,500.00 had to buy fertilizer, buy machinery, pay his taxes, and keep his buildings in repair, and he would not have very much left in the shape of cash income to maintain any kind of a standard of living. That means that that man, with a gross cash figure of \$2,500.00, if he was making a 20 percent profit, which would be a legitimate profit in most businesses, would be making only \$500.00 to live upon; and that is about the truth of the situation in the case of the smaller farmers. It is just about what they have to live on.

I hasten to add that the situation I have depicted is not the whole picture of Nova Scotia farming. We have a lot of good farms, mostly all of which are family farms whose operators enjoy high living standards. Their production methods are extremely efficient. In describing to you the other side of the coin it is hoped that through our own efforts and the work of this committee many more will soon be in the same class.

TABLE I
SALE OF FARM PRODUCTS IN NOVA SCOTIA—1950

Amount of Sales	Percentage Distribution for Farming Categories				
	1	2	3	4	5
	23,515 farms	1,139 farms	9,643 farms	4,672 farms	8,045 farms
Under \$250.....	33	18	27	43	37
\$ 250 to \$ 1,199 part-time.....	23	13	20	27	25
full-time.....	16	14	19	14	15
\$ 1,200 to \$ 2,499.....	16	23	20	9	15
\$ 2,500 to \$ 3,749.....	5	11	7	4	4
\$ 3,750 to \$ 4,999.....	3	6	3	2	2
\$ 5,000 to \$ 7,499.....	2	7	3	1	1
\$ 7,500 to \$ 9,999.....	1	2	1	*	1
\$10,000 to \$14,999.....	1	2	*	*	*
\$15,000 to \$19,999.....	*	2	*	*	*
\$20,000 and over.....	*	2	*	*	*
Total.....	100	100	100	100	100

*Indicates a numerical value of less than 0.5

DESCRIPTION OF FARM CATEGORIES

1. All farms.
2. Special crops—Fruits and Vegetables—over fifty percent of farm revenue from sale of fruits and vegetables.
3. Livestock Specialty—Dairy—seventy percent of farm revenue from the sale of livestock and livestock products with over 40 percent of these sales being dairy products.
4. Livestock Specialty—General—seventy percent of farm revenue from sale of livestock and livestock products, but less than forty per cent of these sales being dairy products.
5. Combination Grain and Livestock.

(Agricultural Statistics by Type of Farming Areas. Publication 56/12)

There is one thing that seems to be singular, that there is not a great deal of differentiation as far as acreage is concerned between all farms,—between fruit and vegetable farms, livestock farms, and combination grain and livestock. The acreage pattern there does not seem to vary too much.

Before I leave the description of our farming set-up I might perhaps read another paragraph, taken from the Gordon Report, the Royal Commission on Canada's Economic Prospects, dealing with agriculture in Nova Scotia and New Brunswick. The Commission goes into this decrease in acreage that we point out in this brief, and gives a reason for it, which I will come to.

The report says:

"This continuous and wholesale reduction in farm acreage has been due to a number of factors, some of which have been rather fundamental. For one thing, a great deal of land was abandoned when it became necessary to shift from a purely self-sufficing to an increasingly commercial type of agriculture. So long as the self-sufficing pattern of rural economy prevailed, neither the kind or the amount of land required was of any great significance. All that was needed was an area that could be used to grow vegetables and cereals for consumption in the home, and to provide pasture for a few sheep and cattle. But since a minimum of mechanical equipment was used, the shape and size; the hilliness or stoniness of the fields was a matter of little consequence. Moreover, since production was for home consumption rather than sale, the question of accessibility to markets simply did not arise. The general result was that much land that fulfilled the requirements of the early farming pattern proved entirely

unsatisfactory when farming became a commercial and highly competitive undertaking. In some cases fields were too hilly or stoney or too small or ill-equipped to permit efficient use of mechanical equipment and the labour in charge of that equipment. In many other instances land was deserted because it was too far from markets. In still other cases it was abandoned because its low fertility made it impossible to obtain worthwhile yields except at prohibitive costs."

I come to factors responsible for the small farm problem.

The persistence of the small farm and its attendant problems can be attributed to a great variety of factors, such as size of operation, available land area, soil, topography, capital, management, etc. These factors may appear singly or in combinations, but a definite pattern is difficult to define for, in many cases, one can find prosperous farmers side-by-side with so-called low-income operators. A knowledge of the combination of factors that determine success or failure will go a long way towards easing the situation that confronts us.

Size of operation is, in most cases, the main problem. This is a generalization that we will qualify. It is a factor, I am sure, you are familiar with. You can have a good prosperous farm, one that is maintaining a reasonable standard of living, and next door a farm operated by someone who, perhaps, during a lifetime has had the same opportunities, and who may have started in a far better financial position, but his neighbour, who has farm management skill and capacity, is able to make a good living, while the man across the way, with less management ability and business know-how, gets steadily worse year by year. An operator who does not produce in sufficient volume to utilize labour and machinery efficiently necessarily is in trouble. Furthermore, a small sales volume is not going to return an income compatible with reasonable living standards, no matter what the market price may be. The farmer does not reap gains on a rising market nor does he get hurt badly at a time of a depressed market. He, therefore, continues to carry on and the various policies designed to assist, such as price supports, etc., are of no avail.

I would like to impress that on the committee. The price support is of very little avail to the man who has a cash income of \$2,500.00. He is selling so little. Take almost any commodity you can think of. Suppose the price of pork went to \$1.00 a pound, and he has only ten pigs to sell, he still is not going to make a living. Seventy-five per cent of our milk farmers in Cape Breton ship less than two cans of milk a day. Doubling the price is not going to give them much of a living, because the price factor is of less value than the volume factor. I might quote you some paragraphs from an article in an American business magazine which emphasizes this very well. The author says:

"Of greatest economic and political power are what I will call the major commercial farmers, by every standard prosperous and successful agri-businessmen. Although they constitute only 27 per cent of the total farm numbers, they account for 78 per cent of all product sales. This "big farmer" group receives at least 78.7 per cent of crop price benefits, for only marketable commodities are eligible for government supports."

In other words, crops consumed in the home are not eligible for price support, and these small farmers have the greatest need.

Senator CAMERON: Is that "Business Horizons"?

Hon. Mr. HALIBURTON: Yes.

Senator CAMERON: And the date of the issue?

Hon. Mr. HALIBURTON: This is just an excerpt from the spring of 1959.

United States Bureau of the Census reports for 1954 show annual sales per farm (a figure that does not include production control payments) as from \$5,000 to \$15,000 for 55 percent of the major commercials, from \$10,000 to \$25,000 for 35 percent, and \$25,000 or above for 10 percent.

It does emphasize a point which should be kept in mind. One more paragraph I will read in this connection.

A second major farm category is made up of those described by the Census as "rural residents and small or part-time farmers". Most of these people are conspicuously unsuccessful as producers, and according to Census figures of the government Social Service, are assuredly in need of higher standards of living and broadened economic opportunities, however these ends may be achieved. These people, more than half of whom are called economically marginal by rural sociologists, represent 56 percent of our farm population, yet account for only 7.1 percent of the total farm sales.

As I have already indicated from our brief, a large proportion of our farmers are in that same category, and they, too, produce a small fraction of the total farm sales. so that they get a very small fraction of the millions of dollars the Federal government is paying for price supports. The very people you want to help most are helped least by these price supports. As the brief states, on the contrary, price assistance policies that are designed to assist small farms, and generally applied to all farms, aggravate the situation of the former. It tends to place the large commercial operator in a stronger position and squeeze the smaller one out. As already indicated, a number of factors are responsible for such a situation, and until these are recognized by way of an analysis of the business, very little can be done by the application of over-all farm policy.

Area of improved land has a bearing on the success of sheep and cattle farms. In Nova Scotia, 90 percent of the farms report some livestock, and an appraisal of the improved acreage per farm indicates that many of the farmers have not the land area to maintain livestock numbers of sufficient size.

TABLE II
IMPROVED ACREAGE PER FARM, NOVA SCOTIA—1950

Acres	Percentage Distribution for Farming Categories				
	1 23,515 farms	2 1,139 farms	3 9,643 farms	4 4,672 farms	5 8,045 farms
Under 3 acres.....	3	2	2	5	4
3 to 9 acres.....	23	11	11	39	30
10 to 69 ".....	66	61	76	54	62
70 to 129 ".....	7	18	10	2	3
130 to 179 ".....	1	3	1	*	1
180 to 239 ".....	*	3	*	*	*
240 to 399 ".....	*	2	*	*	*
400 to 599 ".....	*	*	*	*	*
560 to 759 ".....	*	*	—	—	—
760 to 1,119 ".....	*	*	—	—	—
1,120 to 1,599 ".....	*	*	—	—	*
1,600 and over.....	—	—	—	—	—
	100%	100%	100%	100%	100%

* Indicates a numerical value of less than 0.5%.

DESCRIPTION OF FARM CATEGORIES

1. All farms.
2. Special crops—Fruits and Vegetables—over fifty percent of farm revenue from sale of fruits and vegetables.
3. Livestock Specialty—Dairy—seventy percent of farm revenue from the sale of livestock and livestock products with over 40 percent of these sales being dairy products.
4. Livestock Specialty—General—seventy percent of farm revenue from sale of livestock and dairy products but less than forty per cent of these sales being dairy products.
5. Combination Grain and Livestock.

(Agricultural Statistics by Type of Farming Areas. Publication 56/12)

Table II shows that 90 percent of the farms have an improved acreage of less than 70 acres, which is just about the pattern of fifty years ago. When these farms were laid out, such acreage was sufficient in that the general farm operation was a subsistence one. Today, however, the need for a cash income changes this. In 1921, in Nova Scotia, we had 47,000 such farms raising 8.5 per cent of Canada's sheep and 3.2 per cent of the cattle. In 1956, we had 21,000 farms with 5.2 per cent of the sheep and 1.7 per cent of the cattle.

That decrease is not due to the fact that Nova Scotia has a lesser percentage of Canadian farmers, but to the fact that our cattle and sheep population have dropped in half.

When the number of farms decreased, there was a corresponding decrease in livestock numbers, because those who remained for various reasons did not enlarge their holdings to any degree.

I think that is a factor that should concern us and should confirm the opinion of some people that it is necessary for government to take some positive action to cope with this situation, because, naturally, conditions are not bringing about this consolidation of farms that we want, and generally in Nova Scotia, in most areas, when a farm is abandoned, it is abandoned permanently.

In many cases, lay-out of fields and topography impede efficient operation. These farms and fields were laid out for the technical organization of an earlier time, when manual and horse-drawn labour were the only forms of power. Today, they impose the maximum of inconvenience in the use of modern machinery.

There is a wide diversity of opinion as to the role that soil type plays in farming. We all agree that our better soil types are more desirable but, unfortunately, all farms cannot enjoy them. Much depends on the type of farming that is carried out; whether we grow grass or tobacco changes our choice of soil. Furthermore, with the work that is carried on in soil fertility and drainage studies, much can be done to improve soil conditions. Professor J. D. Black of Harvard University stresses the fact that productivity of land, alone, does not provide a basis on which to estimate farm income. He says:

"... serious confusion has arisen over careless use of such terms as sub-marginal, and poor and low productivity, applied to land. It is true that some lands yield much less per acre than other lands, or carry fewer cattle or sheep. But those who are farming this kind of land in the United States may be making larger net incomes than those who are farming the more fertile lands. Contrast, for example, the net incomes of the ranchers of the semi-arid land of the West with those of the sharecroppers in the rich Delta of the Mississippi." (John B. Black, *Introduction to Economics for Agriculture*, New York, The MacMillan Company, 1953 page 586.)

This is a factor which a good many people have seldom realized.

The point there is that it may take more acres of sub-marginal land, but it is quite possible to use them for agricultural purposes and provide to the farmer a different type of management.

I believe that in many areas of Eastern Canada a closer look should be taken at the nature of our operations and emphasis placed on the promotion of livestock farming.

In some farm enterprises, large land areas are not so important; poultry is a good example. Over the years, we in Nova Scotia have developed a substantial poultry industry of modern design. On the whole, the individual operations are efficient, economic units that provide reasonable income for the operators. In regard to the extent of the industry, we have about 3 per cent of Canada's poultry, as compared to 1.5 percent in 1921.

You will notice, in the case of poultry, our situation with respect to the rest of Canada is reversed. Our poultry industry has grown as compared to Canada as a whole.

The CHAIRMAN: Is that the result of "vertical integration", as they call it?

Hon. Mr. HALIBURTON: No.

The CHAIRMAN: That is straight farm operation.

Hon. Mr. HALIBURTON: We are dealing here with the 1951 Census. It was partly accounted for by the fact that larger operators got into the picture in one particular area of the province, and it may be said that the more corporation type of farm began to play a part, but that stimulated the small farmers around, and so lifted up the whole industry.

What has happened, here, is that when the number of farms raising poultry decreased, those which retained their interest in the industry increased the size of their flocks, a situation entirely different to that of cattle and sheep. We believe that hogs offer a similar opportunity for expansion and development, and we are now engaged in a basic program to accomplish this.

In all our deliberations regarding both the small farm and the commercial farm, availability of capital is most important. I imagine that this has been dealt with adequately by previous witnesses. In Nova Scotia we have been aware of this for some time. In 1956 a Commission was set up under the chairmanship of the late Senator Hawkins to inquire into the situation. This report was completed in 1957 and in the scope of its recommendations provisions were made for what is believed to be an adequate farm credit policy—a policy supported jointly by the Government of Canada and the Province of Nova Scotia. Copies of this report are available to the members of this Commission.

The implementation of the recommendations contained in this report, I realize, takes time. However, in the awareness of the dire need for a more adequate credit policy, our Provincial Government, in its last session of Legislature, saw fit to amend the Nova Scotia Land Settlement Act to provide such. Our work in this field is not yet completed and it is our desire to press for a more comprehensive plan.

I might say there that our "more comprehensive plan" is the feeling that the Federal government should share with us what the Hawkins report in substance said, that 75 per cent of the money be provided by the Federal government, the province to supply 25 per cent, and the province would administer the loan machinery. So it would be done jointly, or at least on a reasonable basis as compared with the Canadian Farm Loan Board, which is not on a regional basis and is ill-designed to suit the needs of the Maritime provinces.

Senator STAMBAUGH: You say that you have an adequate farm credit policy supported jointly by the Government of Canada and the Province of Nova Scotia? That is a new thought, I think, to this committee.

Hon. Mr. HALIBURTON: The need for a more adequate credit policy.

Senator STAMBAUGH: No, it says that the report was completed in 1957, and in the scope of its recommendations provisions were made for what is believed to be an adequate farm credit policy.

Hon. Mr. HALIBURTON: That just referred to the recommendations. All we did in Nova Scotia—this is with reference to our amendment to the Act—was to increase the loan limits. In the last three years we have increased the loan limits twice. They were \$8,000.00 four years ago for a settler, but our problem is, as this is only a settlement loan, we cannot go the whole way.

Senator STAMBAUGH: It is for new settlers?

Hon. Mr. HALIBURTON: It is for new settlers, but we apply it to the sons of farmers; and when a farmer has a son and he wants to put up a new barn, or extend his operations, or buy an adjoining farm, we bring them both in under a father-and-son partnership and call it a new settlement. Actually, it is not a settlement, but we establish it on a new basis. We have increased those loans from \$8,000.00 in 1955 to \$30,000.00 last year. But remember, in order to get that loan of \$30,000.00 the settler must put up 25 per cent. In other words, if he had \$3,000.00 he could borrow from the land settlement board \$90,000.00. That is a very high limit, and in its practical application very few farmers are limited by the money they can put into it. So, we also changed the regulations under the Act. When a settler has borrowed over \$15,000 from the Land Settlement Board he will be subjected to supervision in regard to his management. In other words, it is something like the V.L.A. Our field man on the Nova Scotia Land Settlement Board will discuss the land management program with the farmer, and lay out the plans for him, and discuss the type of production best suited to his farm in that area.

Senator STAMBAUGH: He can borrow \$15,000 without supervision.

Hon. Mr. HALIBURTON: Until he has borrowed \$15,000 we will not give that supervision, unless he asks for it. Our farm management is part of our extension program, and any farmer who asks for supervision will be given it if we can provide it, but our type of loan is a little different from a straight mortgage. In the Land Settlement Board we operate a little differently from having a straight mortgage, but it is essentially the same. We buy the land and the Government then owns the farm—

Senator STAMBAUGH: You take title?

Hon. Mr. HALIBURTON: We give it back to him on an agreement for sale. It runs, say, for 25 years, and at the end of the 25 years we give him a deed, but we retain the deed until the farm is paid for. There is also an insurance clause with respect to this loan. It does not cost very much, but if the settler dies while the loan is on the farm the loan is automatically paid off, and that is a factor that has been extremely valuable to some people. It means, therefore, that if there is \$15,000 against the farm and the farmer or the settler has put in \$4,000 and we have put in the rest, we still call it a \$15,000-loan, and he will be supervised.

Senator BARBOUR: Why should you retain ownership until the whole thing is paid?

Hon. Mr. HALIBURTON: There is no particular reason, except in the beginning this Nova Scotia Land Settlement Board was set up as a result of a crisis in the coal mining situation, and the idea was that we were going to try to get these coal miners back on the land by supplying small loans. All these loans were very inadequate. They ran in the region of \$1,000 or \$2,000. Senator McDonald would know more about this than I do. It was quite unsuccessful. Of 300 settlers not a single one remained on the farm after two years, so the loan policy was changed to apply to farmers with experience who now have to

satisfy the board in regard to their managerial ability before the loan is made. Our record is very good so far. I do not think the province has lost a cent in making these loans, but the board is, perhaps, a little tough. That is another of the problems of agricultural credit. It is not going to be the solution of the problem for these small farmers because a lot of them just will not be able to get this type of credit if they have not the equity to put into it.

Senator BARBOUR: Are there many farmers who have \$10,000 or \$20,000 who are applying for a loan?

Hon. Mr. HALIBURTON: A few weeks ago we loaned \$25,000 to a couple of Dutch settlers, which was the highest loan we have made to date. But, increasingly there is going to be a demand for more money, and as you know none of the regular commercial people will touch bank loans. Since that moratorium on mortgages none of them have got into the mortgage field. It is the Government or nothing.

We have farmers, such as one I am thinking of, who have built up farms over two generations. This particular farmer has a valuable property that certainly would be worth \$70,000 on anybody's books, but he is now in his sixties and he has no children. He should sell that farm because it is going to go downhill, but who could buy it? Nobody could buy it under our legislation at the present time. A man who comes along and applies for such a loan with the qualifications that the board thinks necessary, and the experience, will be able to get a very substantial amount of money towards buying such a farm, but, again, I want to remind the committee that that does not solve the credit problems of the small farmer at all.

Senator HORNER: How many acres would be in this good farm you speak of?

Hon. Mr. HALIBURTON: Well, it is largely a fruit and beef farm. There probably would be upwards of a 1,000 acres.

Senator HORNER: And in regard to the farm on which you loaned \$25,000 to the Dutch people, how many acres would be included in that, for instance.

Hon. Mr. HALIBURTON: Well, it is a farm near where you used to live, Senator McDonald. Perhaps you would know how many acres there are.

Senator McDONALD: It is not a large farm. I would think about 150 or 175 acres.

Hon. Mr. HALIBURTON: There are very good buildings on the farm, and it is a dairy farm. In addition, he probably has some dyke land.

Senator McDONALD: I was just going to say that you would rather make a large loan than a small one, would you not, for the reason that in making a small loan the farmer getting the money does not secure enough cash to make a success of it whereas with a larger loan of \$8,000 or \$10,000 the chances are that he probably can succeed if he is the right type and he has the right background and training.

Hon. Mr. HALIBURTON: That is perfectly true. They are getting more reluctant all the time to make loans of \$2,000 or \$3,000. They say to the man: "You cannot possibly make a go of that. You just cannot do it. If we give you this money you will be worse off in a couple of years than you are now. Unless you can show us a program by which you can make headway we cannot give you the loan". But, if they have a settler who says: "I want to go into hog production in addition to my dairy cows", they will give him \$2,000 or \$3,000 to build a suitable building, but that is not financing the whole operation. If a man wants to buy a farm for \$15,000 you can imagine what kind of a farm it would be. The board says: "You are licked before you start".

Senator STAMBAUGH: What is your rate of interest?

Hon. Mr. HALIBURTON: It is $4\frac{1}{2}$ per cent, but I do not know how long it will continue to be that.

Senator STAMBAUGH: Has it always been that? Did it start out at $4\frac{1}{2}$ per cent?

Hon. Mr. HALIBURTON: Yes. It has not yet been changed, but we may have to change it. Our Land Settlement Board, up to last year, had loaned a total of something like a million dollars—last year we loaned a million dollars, and this year we loaned a quarter of a million dollars in one week. The demand for money is increasing so fast that federal cooperation in a joint loan plan, would be most helpful.

Senator BARBOUR: Can you borrow that money at $4\frac{1}{2}$ per cent?

Hon. Mr. HALIBURTON: No, we are really subsidizing it.

Senator HORNER: During the years you have been in operation how are they coming along, in your experience? Are they making their first payments?

Hon. Mr. HALIBURTON: That is why our Government is not putting up any complaint. They do not seem to be worried because our loan record is good.

Senator HORNER: They are all doing well.

Hon. Mr. HALIBURTON: Yes.

Senator CAMERON: How many individuals per year would qualify as new settlers in Nova Scotia, do you recall?

Hon. Mr. HALIBURTON: I am sorry but I don't think I have those figures with me. But that is another point. It is not a very large amount. If the loans average \$10,000 you only have to have 100 loans and you have \$1 million. It is a drop in the bucket.

Senator HIGGINS: If a man owns a farm and he borrows money from the Government, why doesn't the Government leave the title in the farmer's name? Why does the Government take title in its own name?

Hon. Mr. HALIBURTON: That is only a device. It started in the old days when they were having so much trouble and if a man got behind in his payments it was easier to protect public funds.

Senator HIGGINS: Does he transfer the property to the Government?

Hon. Mr. HALIBURTON: He has as much equity as if he had the farm with 75 per cent mortgage on it. He doesn't own the mortgage. The alternative would be for the Loan Board to take a mortgage, and it doesn't really matter.

Senator HIGGINS: I can understand if a person is selling a farm that the Government will advance money to the purchaser and take the farm in the Government's name. That is perfectly all right, but if the man who owns the farm borrows \$10,000 and the farm is worth \$40,000 or \$50,000, why is it put in the Government's name?

Hon. Mr. HALIBURTON: When he does that the Government will have given him 75 per cent of the money. Perhaps I should give a little more detail as to what actually happens. A man came to me last week with his two sons. This man is a fairly good farmer and he wants to settle his two sons on adjoining farms. The farmer now owns two farms consisting of 150 acres each. He wants to put one son on the farm to the left of him and his other son on the farm to the right of him and he will keep the farm in the middle. It is not a partnership but a sort of joint deal where they would use the same machinery and co-ordinate their whole production program. They want to borrow about \$10,000 each. Well, the Government would pay the father for the farm and one boy would put in 25 per cent and the father would get the \$10,000 for the farm which would be sold to that boy on a bill of sale. The same is true with respect to the other boy.

Senator BARBOUR: All the property would then be in the name of the Government.

Hon. Mr. HALIBURTON: The farms of the two boys would be in the name of the Government. I suggested they go into partnership and consolidate the whole unit, but there are problems there which create difficulties because they would like to be independent of each other. They want to work together and yet keep the properties in their own names.

Senator CAMERON: Where the Government has title to the land what effect has this agreement of sale on the individual's capacity to go to his bank for current financing? Suppose he wanted to borrow \$1,000 for a year for current needs and he has not got title to put up as collateral? What effect has that?

Hon. Mr. HAMILTON: It has an adverse effect in the early stages, particularly when the bank does not know the operator. In my case I have grouped together what used to be 10 individual farms. Two of these I bought from the Land Settlement Board in the days when the policy was different and people moved off the farms because they did not keep up their payments. I made a deal with the Land Settlement Board to carry on the payments. It would have been stupid, even if I had the money, to pay for the farms outright, because the $4\frac{1}{2}$ per cent interest rate was attractive. So I have been carrying these farms along for 20 years, and last year I made the final payment on one of these farms. It certainly never hurt my bank credit. It is of assistance to a farmer when his borrowing capacity becomes known to a bank. Our banks are working very closely today with the Land Settlement Board. They get full co-operation. This winter we organized meetings between the local branch managers and our extension workers. One of the banks appointed its manager as a sort of farm credit expert in one of the best farming areas. He goes to the meetings of the Land Settlement Board and observes how they operate. By the way, he feels that they are a little bit tough. Recently there has grown up a close degree of co-operation between some of the banks and the farmers.

The CHAIRMAN: Under this Land settlement scheme you allow up to \$30,000 to buy these farms for settlement purposes.

Hon. Mr. HALIBURTON: Up to that.

The CHAIRMAN: And you also have farm improvement loans there.

Hon. Mr. HALIBURTON: That is common to all Canada.

The CHAIRMAN: Yes, but you have access to that for the purchase of machinery, and so on?

Hon. Mr. HALIBURTON: Yes.

The CHAIRMAN: And if the farmer's credit is good he is able to borrow up to \$1,000 for a year's operation on a short-term credit basis?

Hon. Mr. HALIBURTON: Yes.

The CHAIRMAN: So you have three types of loans available to you there.

Hon. Mr. HALIBURTON: Yes. In fact, a problem with a good many of us is that we get too much credit. It is a complicated situation. It is partly due to the farmer himself. A small farmer in some areas where they don't use too much bank credit may go to a bank to get a note for, say, \$500. The banker says, "Well, now, what are you going to do with it? Will you give me a statement of your affairs? Will you turn your insurance policy over to the bank?" In some of our counties such a farmer is apt to say to the banker, "You mind your own business. I won't tell you anything. If you won't make me a loan, okay, I'll get it somewhere else." In other words, if the farmer will not co-operate with the banker he cannot expect his assistance.

Policy Observations: In the foregoing, I have attempted, in a brief way, to describe the extent and nature of the small farm problem in Nova Scotia. It is definitely a problem not only by way of the difficulties encountered by the people operating these farms but, also, for those responsible for governmental policy which, in one way or another, applies to them. With this in mind, I would like to make a few observations and comments regarding present and future policy.

(1) There appears to be an obvious need for new areas of employment for the operators of small farms whose position is such that no substantial help can be provided for them in present locations. Should future plans contemplate such re-establishment, I would suggest that it be on an entirely voluntary and gradual basis. The people being re-established should be made to endure as little hardship as possible, both financially and otherwise. We must remember that we have small farms not only because of economic reasons but also because of social ones. Much study is required if we are to avoid a new situation far worse than the one we try to cure.

I might say that later on there is some reference to the proportion of farm income in our province that comes from farm woodlots. There are some areas, adjacent to pulp mills in Nova Scotia, we have only two at present; some farmers make far more income from their woodlots than from their agricultural production, and it always supplements and perhaps makes a great deal of difference when the small farmers develop woodlots. One of our most prosperous counties is Lunenburg, and one of the chief sources of economic prosperity comes from taking care of woodlots; there is a pulp mill not too far away and they get a fairly good price for their pulp. When we come to eastern Nova Scotia and Cape Breton they can get the same price for pulpwood at the mill, but when the freight is paid there is very little left for the farm woodlot owner; so it is a very marginal proposition, and he only cuts wood when he is absolutely destitute. We hope to have a new pulp mill established in eastern Nova Scotia, and that will do much to relieve the problems of a great many of those small farmers. If they can sell say \$1,000 worth of pulpwood during the winter they will have that money to develop their small farms during the farming season.

The CHAIRMAN: What size of woodlot would they need to have?

Hon. Mr. HALIBURTON: Oh, it depends on the stand. It would be easy to take \$100 off an acre over a period of 20 or 30 years or more than that. Wood in Cape Breton reaches maturity in 40 years. Perhaps somebody would know how many cords that would yield. But some of the small farmers have woodlots of 200 and 300 acres, and 50 acres of a good stand of wood would be valuable.

Senator STAMBAUCH: What kind of wood is that?

Hon. Mr. HALIBURTON: Spruce. These abandoned farms grow spruce, and it is 40 years from the time the farm is abandoned that there have been stands of spruce ready for cutting.

Mr. STUTT: Who has control of the abandoned land? You say in a lot of cases land is abandoned permanently.

Hon. Mr. HALIBURTON: Oh, the owner usually retains it. They may have moved to Halifax or Boston, but they still retain it.

Senator HORNER: Some would go to the municipalities for taxes.

Hon. Mr. HALIBURTON: Yes, if the taxes were not paid. But in practice the Government buys it back as Crown land if it is in the market at all. The Government is always in the market for such lands and puts it in the Crown reserve.

Continuing: (2) Our plans should be practical and should attempt to maintain on the land a population in line with the food and fibre needs, but not so great as to make the chances of maintaining high living standards impossible for farmers. A philosophy that places the welfare of the land above the welfare of the people upon it seems unrealistic. There is no doubt a deep satisfaction in seeing a fine herd grazing on green grass, but the good things of the rural scene will be appreciated more by the farmer when he has the leisure and the means to enjoy them.

(3) For farmers who remain on the land, policies should be soundly devised to provide adequate capital and the necessary economic and technological information. The information provided by the hearings of this committee will, I hope, make a valuable contribution to this end.

(4) Regional concentration of industry in North America has brought about many problems in land use, both social and economic, which are of concern to both Canada and the United States. A similar situation could take place in agriculture and I believe that policies like that on freight assistance on feed grains are most valuable in helping to promote distribution of production. This has been a most beneficial policy, both from our point of view and from the point of view of the nation as a whole, in that it decentralizes production of some of our major livestock enterprises.

(5) There is an aspect of land use which to date, has not been seriously explored, and this is recreational land use. Although the value of such land use is difficult to measure, the time is ripe for such assessment. We have entered a phase of social living in which the employment of leisure time has assumed a terrific economic importance. This is bound to increase in importance as more people obtain employment in jobs where working hours are regulated.

The general availability of transportation makes it possible for more people to spend vacations and other leisure time away from home. Well-planned recreational use of our land and water areas could well provide a pleasant and economically rewarding return for terrain which is definitely submarginal for agricultural purposes.

As already indicated, the economic value of such projects are difficult to appraise but, in many parts of eastern Canada, where emphasis is placed on the tourist dollar, they could be very important. The small farm operator, through the various activities associated with the use of recreational facilities, could supplement his income substantially. In many cases, this is going on.

This is the sort of thing we have in mind. As you know, there are many areas in the United States where the local laws are a little different and a farmer can enclose an area of abandoned farmland and provide pheasant shooting or fishing, and so on, and charge the visitor, and a good many of them find that is a very profitable way to develop old farms.

(6) The contribution of farm woodlots to the cash income of Nova Scotia farmers is approximately \$6,000,000 annually, or about 14 per cent of the total. I believe that in the future this proportion will increase. This part of the farm enterprise can be made to contribute substantially more to Nova Scotia farmers by the application of an intense program of forest management. Although the province is carrying out an effective program with limited resources, much can be done by further research in care of woodlots, drainage, roads, etc. Any regrouping of farms should take into account the possibilities of the farm woodlot, and the contribution it can make, both to the farmer and to the general economy of the province.

(7) One of the greatest opportunities of improving Nova Scotian agriculture and helping the small farmer is by expanding the production of cattle and sheep; and to accomplish this, the area of improved land per farm must be increased.

Because, as the committee knows, cattle and sheep are both an extensive type of farming operations, particularly beef cattle, and that is what we have particular reference to.

This can be done in two ways: first, by community pastures, and secondly, by the consolidation of farms.

In regard to community pastures, we have undertaken to establish a number of these throughout the province. They provide pasture for cattle and sheep from a number of small farms, thus enabling the operators of these farms to devote practically all their improved land to the growing of feed and other crops.

Well, actually they are not limited to small farms, they come from small and large farms.

In order to establish a pasture of economic size, the consolidation of a number of farms is required. Although this may reduce the number of farms in any particular area, it makes for a larger operation for those farms that remain.

I would go further and say that it will enable some of those farms to remain.

These pastures are meeting with excellent results and it is our plan to expand the acreage as rapidly as funds can be made available for this purpose.

This is actually the third year we have been using our community pastures; the third year in one of them, and the fourth year in one. We have only three.

The CHAIRMAN: What size are they?

Hon. Mr. HALIBURTON: Well, in Mabou the Government owns 20,000 acres, and two or three thousand of that is agricultural area. In Cumberland County I think it is 600 acres; and in Pictou county, about 1,000 acres.

Up until a year ago we were rather disappointed we could not get enough cattle and sheep to keep the grass down in order to pay the overhead that we are carrying on these pastures. This year the situation is reversed and we have been swamped with applications to put cattle in and every one of these pastures is going to be overstocked. Suppose a man is able to keep only 30 head of cattle particularly if he may have six or eight cows and 10 or 15 young cattle and he has to provide pasture and grow hay for those on his home farm. Well, if he can put all these young cattle, all the ones who do not have to be milked, or if he is in beef production and puts the whole 25 on the community pasture then all the land area at home can be used to provide winter feeding and he can double the number of cattle his farm will carry because he can devote his whole home farm to growing hay or grain for winter feeding and put all his cattle on the community pasture.

Senator HORNER: What is the charge per head for pasturing in the community pasture?

Hon. Mr. HALIBURTON: It is about \$10 for a full-grown cow. The prices are patterned on the western community pastures in Saskatchewan and Alberta.

Senator BARBOUR: Does the Government put any commercial fertilizer on these pastures each year?

Hon. Mr. HALIBURTON: Yes, that is done. The Government actually developed these pastures. All this land was practically worthless when the Government took it over for this purpose.

Senator BARBOUR: How good is the Community pasture in Cumberland county?

Hon. Mr. HALIBURTON: It is probably the best pasture in Canada. We have a similar pasture on the Nappan experimental farm and over a five-year period they have a record of something like 430 pounds of beef per acre.

Senator McGRAND: What about the one at Mabou in Cape Breton?

Hon. Mr. HALIBURTON: It is not so good because it is on a table land. It was comprised of about 70 farms that were worked in the days when coal mining started in Nova Scotia and there was something like 10 school sections up there. Now the area is pretty well deserted and for years there were no farmhouses or barns around; the young people went to work in the coal mines and the old people died off, and when the Government took the place over it was entirely neglected and nobody lived within miles of it. It has a very good soil but it is high and the season is short.

The CHAIRMAN: Do you have to grass those pastures down?

Hon. Mr. HALIBURTON: There was some grass. In some cases we are plowing it up and reseeded it, and, in some cases harrowing and applying fertilizer with seed. It is heavily limed of course. We are trying to find the cheapest way of reconditioning all these pastures. At the Cumberland county community pasture it was a question of draining the marshland and the application of lime.

Senator BRADETTE: Do you have any difficulty with weeds in these pastures?

Hon. Mr. HALIBURTON: No, we do not mind them; the weeds are mostly edible ones.

Senator BRADETTE: Are you not bothered with mustard seed or daisies?

Hon. Mr. HALIBURTON: No. Where you get a well-managed pasture you do not get many daisies. Native clovers and native grasses come in even if you do not seed it.

Senator CAMERON: What about the number of cattle per acre in these various areas?

Hon. Mr. HALIBURTON: On the Cumberland pasture we put one to two head per acre. On the others, perhaps one to the acre, with five or six sheep. Mabou is more of a sheep pasture but there are some cattle too.

Senator McDONALD (*Kings*): Is there any way of getting an increased number of sheep produced in Nova Scotia?

Hon. Mr. HALIBURTON: Yes, in western Nova Scotia particularly they have increased and there is a greater interest in sheep.

Senator McDONALD (*Kings*): A lot of those farms in eastern Nova Scotia and particularly in Cape Breton should carry more sheep, should they not?

Hon. Mr. HALIBURTON: Cape Breton is a natural sheep country. We could have an expansion of one thousand per cent in Cape Breton.

Senator McDONALD (*Kings*): It makes me feel good to hear of this pasture improvement. As I said the other day I cannot take any credit for it, but it is a wonderful policy and it will help a lot of those smaller farmers. I want to congratulate you on the good work you are doing and particularly the work you are doing on pasture improvements.

Hon. Mr. HALIBURTON: The community pasture idea was brought from western Canada by a former Minister of Agriculture for Nova Scotia Hon. Colin Chisholm. We are also developing a fourth pasture, the old Wolfville dike. We have acquired that.

Senator BRADETTE: Do you not plow that pasture land so as to have new and better grasses, because the manure on the grass sometimes pollutes the pasture field?

Hon. Mr. HALIBURTON: We put a heavy chain harrow over it once a year to spread the droppings. Weeds are never a problem in our pastures. We have a pretty good development of native grasses and we apply seed too and once we get them started these dike land pastures go on for ever. There have been instances where they have not been plowed for 70 years and as long as they get a little lime occasionally they are productive.

Senator BRADETTE: I would say that the land becomes sour if it is not cultivated, and if it does the cattle will not eat the grass.

Hon. Mr. HALIBURTON: We are not troubled with that too much.

Senator BARBOUR: Would it not be a profitable investment for a person to buy young cattle two or three years old and put them on this pasture for the summer?

Hon. Mr. HALIBURTON: It would be extremely profitable if you could get the right type of cattle. Here is the problem: I drove up to the community pasture at Cumberland County last year when they were taking the cattle off the pasture, and just as I got there they were weighing a young shorthorn cow. This cow had gained 400 pounds on the pasture and that cow could have been sold right there to anybody for 20 cents a pound. So that gain was worth \$80.

The pasture costs the owner of the cow \$10, so he made a gain of \$70 on that cow. Had somebody been able to buy that cow at 20 cents a pound and put her on the pasture, he would have made a profit of \$70. But here is the joker: the next animal may show a gain of only 50 pounds, and at 20 cents a pound that is not profitable. The trouble is too few of our well bred type animals are good beef type.

Senator BARBOUR: That would happen to only one animal in the whole pasture.

Hon. Mr. HALIBURTON: Oh no; a lot of cattle make gains to that extent. But the trouble is we have so many cattle of the dairy breed which were half starved when they were calves, and they haven't any growth factor left. They are put on the pasture, but they are disappointing. It is not only necessary to provide good pasture, but we have to have a good breed of cattle; and if you want that type of cattle that will make a good gain, you have to pay a good price for them.

Senator BARBOUR: Even if you paid the market price by weight of good beef, you would still have a nice profit.

Hon. Mr. HALIBURTON: Anybody who knew his business and knew cattle could make a nice profit.

Senator CAMERON: I think we have to realize that one reason why our beef market is so good today is because of the depletion of herds in Texas, Oklahoma and New Mexico, because of drought conditions there two or three years ago. A year and a half from now they may be back on the market and we could easily get over-stocked with beef.

Senator BRADETTE: We may have to draw from Texas too.

Senator HORNER: Our population is increasing.

Hon. Mr. HALIBURTON: It is increasing by 2 per cent per year. They have had destructive droughts in Argentine, a country which used to supply Britain with cattle; and Australia is said to have had 200,000 head of cattle perish with the drought.

Senator HORNER: We used to buy about 50,000 head of cattle from Argentine in cans.

Hon. Mr. HALIBURTON: Argentine now does not have enough beef for her own use, and has rationed it. I don't think our beef population is going

to get very much larger, but that depends on western Canada. If we can double our cattle population in Nova Scotia it will be all we can do perhaps in the next 25 years, but by that time the population will have grown considerably.

Senator BARBOUR: But that does not supply your own needs.

Hon. Mr. HALIBURTON: Oh no.

Senator HORNER: There is not much danger of over-stocking beef, because you can't live in California and feed cattle.

Hon. Mr. HALIBURTON: The chief danger is when there is a drought the cattle go to market, and that makes the long-term picture look better. When I saw those cattle being weighed I was impressed with the fact that when we talk about market price we don't consider the cost of production. If the market price had been 10 cents a pound, the man who owned a good fast growing heifer would still have made a profit of perhaps \$30 or \$40; but at 10 cents a pound the man who had an animal that gained only 50 pounds would not have paid the pasture fee. On the other hand, if the man with the poor animal had \$1 a pound for that gain, he would not have got much more than the fellow who had 20 cents a pound.

The CHAIRMAN: We have the same problem in Saskatchewan: the farmer with the poor cattle is always complaining about the price being too low.

Senator HORNER: Holsteins, if they are well fed, even though they are slow growing, get to be a good weight at three years old, and bring an equally good price on the market.

Hon. Mr. HALIBURTON: You must not let the Holstein men get the idea...

Senator HORNER: Well, I have fed them as steers, and made money on them, though I did buy them cheaply.

Hon. Mr. HALIBURTON: It is generally recognized that Holsteins do not start growing until they are about three years old, while in one year you can get a Shorthorn weighing almost 1,000 pounds, if well fed.

Senator STAMBAUGH: You can't sell Holsteins for baby beef and get top prices.

Hon. Mr. HALIBURTON: No.

Senator McDONALD (*Kings*): There is a great problem in Cumberland county, where a vast area is not being used for beef production as it could be used. I can't understand the farmers of that county not increasing their beef production, especially after the dykes were put in. There is a great amount of feed going to waste there.

Hon. Mr. HALIBURTON: There is still a terrific area going to waste there.

Senator McDONALD (*Kings*): Why haven't some ambitious young farmers gone in and developed that area?

Senator STAMBAUGH: They are probably taking jobs in town.

Hon. Mr. HALIBURTON: No. It is that the older farmers won't sell. There is one road around Amherst Point where each farmer has a few hundred acres of marsh not being utilized for farming. There may be a farmer of say 70 years of age, who was a good farmer when he was young, but he won't sell because his property has a good house on it, and if he sold he would just have to exchange it for a house in town. He would prefer to live on the farm. It takes a long time to get these farms back in circulation once they are tied up.

Senator CAMERON: Of the total population what percentage lives on farms now, exclusive of those living in villages?

Hon. Mr. HALIBURTON: These figures show 23,000; it is now down to 21,000 according to the 1956 census. The next census will probably show it at 18,000

or 19,000 occupied farms of three acres or more—that would be about one-sixth of the population of the province. The pattern of living in Nova Scotia has changed since the paved roads came in. Now everybody builds a house along the paved highway, and they may work 20 or 30 miles away in a town or city. I don't think they would be classified as farmers. There has been a general movement off the farms in back areas; they build houses near the pavement and go to work.

Senator McGRAND: What is the story on these abandoned farms? You mentioned the fact that the people leave the back settlements and move out. What is being done with the abandoned farms in Inverness County? Mabou is in Inverness County, is it?

Hon. Mr. HALIBURTON: Yes.

Senator McGRAND: That county has only about half the population it had 30 years ago.

Hon. Mr. HALIBURTON: Yes.

Senator McGRAND: What is happening to the abandoned farms? I presume they are going into the pasture?

Hon. Mr. HALIBURTON: No. The abandoned farms that are put into pasture are from an area that was abandoned almost 100 years ago, up in the highlands. The type of farm you are thinking of goes back to woods. You can travel through Inverness County and see spruce along the road; you will see square areas with bigger spruce trees—that was once a farm.

Senator McGRAND: Where do you get the pasture?

Hon. Mr. HALIBURTON: It did not come in through woods, not entirely. We do get a certain amount by clearing a portion of the area. I do not understand why the soil is so good there. The soil is a deep loam, and amazingly good soil, up on this plateau, and the clover continues to grow there.

Senator McGRAND: It did not go to woods?

Hon. Mr. HALIBURTON: No, it did not go to woods.

Senator CAMERON: How high is this plateau you are talking about?

Hon. Mr. HALIBURTON: About 600 feet.

Senator STAMBAUGH: It is not very high for Alberta, is it?

Senator CAMERON: It is hard to reconcile what you call high land with what we call high land.

Hon. Mr. HALIBURTON: That height of 600 feet makes a month's difference in the pasturing season from what it is in the valleys.

Senator HORNER: A moment ago you were speaking about the shorthorn cow, and I am thinking of Holstein cattle out in Saskatoon. Here is a Holstein cow without too much middle and a nice covering of fat selling for 16 cents, and a great fat cow with lumps of fat will go to 14 cents—two cents below the Holstein—because there is too much fat. Nobody eats much fat any more. I have seen that.

Senator STAMBAUGH: I did not think they ran to that in Saskatchewan.

The CHAIRMAN: With regard to these abandoned pasture lands are they pretty well all privately held?

Hon. Mr. HALIBURTON: Yes.

The CHAIRMAN: The owners may not be living on them, but they are still keeping the taxes paid, and they still control them?

Hon. Mr. HALIBURTON: It would be interesting to have a survey made on the pattern of development. In some areas—for instance, in our area, the Annapolis Valley area—there are not many farms abandoned. They may be neglected for a few years, and then some neighbour buys them. There are very few really abandoned farms.

Senator McGRAND: Will this question of improved credit do anything towards those farms which are in the process of being abandoned? Will this improved credit do anything to keep those in operation—those farms which are pretty well abandoned?

Hon. Mr. HALIBURTON: Improved credit will enable a neighbour to take it over. That is what we are trying to encourage.

Senator McGRAND: Where does the displaced person go?

Hon. Mr. HALIBURTON: It is a long process. The displaced person probably gets buried under the ground. The genesis of the abandonment is long before the sons have left the farm. They go off somewhere and work in industry. They have left there, and the old man stays there as long as he lives, and he gets too feeble to look after the farm, and buildings fall down, and by the time he dies the land is useless. Unless there is a neighbouring farmer who can utilize the land it has little value.

Mr. STUTT: The census change between 1951 and 1956 shows a 12½ per cent decrease in occupied farmland. It makes you wonder when you talk about farms being abandoned. It almost indicates another use altogether.

Hon. Mr. HALIBURTON: No, not another use; just straight, plain abandonment. I think the abandonment accelerated between 1951 and 1956. There were better employment conditions in industry, and this has increased the abandonment. It is one of the basic factors which are making for abandonment of farms. If you fly over the province in a small airplane, and you do not get up very high, you can then see the pattern clearly. Most of the abandoned farms are away from good roads. At one time I remember we had almost five or six times the cultivated area in Nova Scotia than we have today. There are areas where there are still a few farms, but 20 years ago there might have been a place there with a school, and now there are only two farms left, so they bring the children out to a neighbouring school section. In 10 years' time there will be no farms there because there is a tendency towards that. In a little community which is, say, 15 miles back off the highway they have always been small farms, and it would be hard to consolidate them, anyway. The old people will live there, but the young people will not, especially as they get more education and equip themselves for jobs. They do not stay there. When you fly over you are struck by this. You can see the green, well kept farms in a pattern along the highways and the rivers and so on, and then in the back areas you see these obviously neglected farms with tumble-down buildings, and so on, and the bushes growing up.

But, that is not the entire story because you can ride through some of our good farming section, like the Shubenacadie Valley, and on the road to Truro, and you can see farms of 100 acres and 50 acres with little spruce trees poking up through, showing that they are not necessarily abandoned, but have been neglected. Somebody may still be living in the house. There may be two houses on the farm, and living there may be railroad workers or travelling salesmen. They still occupy the house, but they have let the farm go.

Mr. STUTT: Most of them would have good land, too.

Hon. Mr. HALIBURTON: That is essentially good land. All that soil is good. Of course, it might have been badly used. The fertility might have been depleted, and it probably all needs lime.

Senator McDONALD: In regard to that class of farmland you have been talking about in the Shubenacadie Valley it may be purchased by neighbours and be worked better than it has ever been farmed before?

Hon. Mr. HALIBURTON: Yes, that is true, but it is a very slow process.

The CHAIRMAN: Is there a great number of men wanting to buy farms down there?

Hon. Mr. HALIBURTON: There are, but there is ever increasingly, the realization—and it has always been known—that it is hard to be a pioneer, and people are getting less prepared to be pioneers. A man who bought an old farm like that—take my own farm, for instance. We had to clear the land, and that is how I built up my own farm. We started with oxen and cleared the land of bushes, and we are still doing it, but that process takes a lifetime, and nobody wants to do it today. A young fellow today, especially if you supply him with credit, is not going to buy that farm, and he is smart in not buying it, because he has then a chance of making money and repaying his debt. If he buys that type of farm it will be 10 years before he makes much impact on it.

Senator BARBOUR: Have you many immigrants looking for farms there?

Hon. Mr. HALIBURTON: No, not many. Most of our successful settlers are Dutchmen, but they like to get into the milk business. Our milk prices in Nova Scotia are as high as anywhere in Canada, and the milk business is very profitable. These Dutchmen do not want to buy a farm unless a milk contract goes with it. There are plenty of our own people to acquire these farms, so we don't know that what is being done is too good. But they work hard and they are invariably successful.

Senator McDONALD (*Kings*): They are good citizens.

Hon. Mr. HALIBURTON: Yes.

Senator STAMBAUGH: You spoke about wood lots and your pulp wood being mostly spruce. Have you not had some difficulty about spruce being attacked by bugs and dying off?

Hon. Mr. HALIBURTON: That has been in New Brunswick. We have had some difficulty too but nothing like in New Brunswick. If I might skim over the rest of this brief, Mr. Chairman?

The CHAIRMAN: Yes.

Hon. Mr. HALIBURTON: Individual farms can also be enlarged by the same procedure. Any program devised for the rehabilitation of our small farms in Nova Scotia could well consider the extension of these two projects.

(8) The importance of capital, in easing the situation that exists in regard to the small farm, cannot be over-emphasized. Many of the problems now confronting us stem from the lack of capital to enlarge individual units and, unless this enlargement is made possible, the problem will be with us for a long time hence. We have already shown how we are attempting to improve this situation and further interest by the Federal Government in the matter is solicited.

(9) The assistance provided through federal agricultural policies such as those regarding limestone and 4-H Clubs are sincerely appreciated, and we believe they are most valuable to our farming industry.

The financial contribution made by these policies is not the sole reason for their effectiveness. The close working arrangements that have developed between the provincial and federal authorities have done much toward making them workable. It is our wish that this co-operation will continue when a land-use program is being considered and devised.

The whole problem of the small farm could best be dealt with by the creation of a special authority to study the implications and to evolve a policy by which adjustment could be carried out. The primary functions of such an authority would be development and rehabilitation. I would suggest that a development program might be started perhaps in northern or eastern Nova Scotia on a restricted scale as a pilot program. Such an experiment could be set up under the federal Department of Agriculture in such a way that it would work in close co-operation with the provinces. The M.M.R.A., which

has completed many useful projects in the Maritimes—and which of course has been eminently successful in the western provinces—could well be taken as a pattern to follow in this development.

The first undertaking would be a land-use study and what I have in mind is an appraisal of the farming potential in every area. Such an appraisal would show whether or not an adjustment of farming in this area is possible. This kind of a study should also indicate how various changes could be brought about in any specific region and within any individual farm organization or farm setup.

It is obvious that another outgrowth of this kind of study would be the delineation of these areas that should be used for forestry, national parks, recreational areas, and so on.

I hope that this presentation has made some contribution to the thinking on the small farm problem. When further study or action is taken in this regard, I assure you that the Province of Nova Scotia will be very happy to work closely with you.

The CHAIRMAN: Have you had such a thing as a soil survey in Nova Scotia?

Hon. Mr. HALIBURTON: Oh, yes.

The CHAIRMAN: It was a complete survey?

Hon. Mr. HALIBURTON: Yes. Five of our counties are major agricultural counties, and in the remaining counties the agricultural industry is to be found in pockets. That contributes to our small farm problem because it is in those areas where you find a lot of small farms.

The CHAIRMAN: You have definite areas where there is a small farm problem?

Hon. Mr. HALIBURTON: Yes. Cumberland county is almost entirely an agricultural county. There are plenty of small farm problems there too but in time something will be done about it under natural economic laws. In Cumberland county these small farms will not be permanently abandoned, but in other areas they will be. However, some study might perhaps indicate it would be better to have them abandoned and to utilize the land for forestry.

There is another point I would like to make, Mr. Chairman. I refer again to this article in *Business Horizons* in order to give the committee an idea of basic economic changes that are forcing this readjustment in agriculture, and how deep they go. It is a universal problem. We have been talking about Nova Scotia but this problem applies over the North American continent, although the small farm problem applies to us more particularly. Part of the problem is due to the fact that the yield in the United States of corn, for instance, has jumped from an average of 50 bushels to the acre to as high as 150 bushels to the acre.

That is typical. It is even possible to produce 200 bushels per acre of new hybrid types of corn. This can be done under treatments that would be completely beyond the capacity of a small farmer to provide. The whole procedure and technique would be mechanized and scientific, but the small farmer is still producing 50 bushels to the acre. So not only has he little volume, he has little yield too.

The CHAIRMAN: Terrific competition.

Hon. Mr. HALIBURTON: We were talking about beef. Beef is one of the commodities that has not changed too much. The small commercial farmer can enjoy some degree of security about beef and sheep because the basic program has not changed much. The sheep lives on hay and grass and so does the beef animal. Sheep and beef are much the same as they were 100 hundred years ago, although some people might tell you that the beef is not as good now. But this is not true in all phases of livestock production. Take broilers as an extreme example. It used to take 15 pounds of feed and 15 weeks of feeding to produce a 3-pound broiler. Nowadays, with the selectivity of strains and the breeding work that has been done for resistance to disease and utilization of feed, and the turning of protein into meat, you can grow a pound of broiler meat from $2\frac{1}{2}$ pounds of grain. Instead of the 15 pounds of grain and 15 weeks of feeding you can now get a 3-pound broiler in 9 weeks with 7 pounds of feed. So we can produce broilers far cheaper than our grandfathers could because of this increased technique. To some extent the same is true of hog production because of what our livestock specialists know about nutrition, and so on. These things are all available to the larger farmers and it is difficult for the small farmer to make application of these things unless he is an extremely good manager. This all means that 120 years ago one farm worker served the needs of four people, and today the average farm worker can feed nearly 21 people.

The CHAIRMAN: Senator McGrand?

Senator McGRAND: The question of taxation is a very acute one nearly everywhere, and from the standpoint of collecting municipal taxes this abandoned farm situation must aggravate your collection of taxes, mustn't it?

Hon. Mr. HALIBURTON: It does. It puts a further burden on the farmers who are still farming. That is really one of our problems that the question of municipal taxation should be very closely allied, especially in the Maritime provinces.

Hon. Mr. HALIBURTON: Well, it is getting desperate everywhere; we don't know where it is going, because the provinces have relieved the municipalities of practically everything but the burden of education, but now we have embarked on an orgy of expense in education, and have transportation for children by buses, and while it should pay off, it certainly is becoming a burden on the agricultural land, and the basis of taxation in the municipalities of Nova Scotia has always been land.

The CHAIRMAN: You suggested in your brief that better education of the young man or young girl on the farm means that they will naturally move to the cities and leave the farm; the farmers pay for their education, and they leave.

Senator McGRAND: Then there is the problem of these farms that are sub-marginal or in process of being abandoned. A man perhaps gets to the age of 60, and all that sort of thing, the taxes are high, and there is a tendency for him to slaughter the wood on his farm.

Hon. Mr. HALIBURTON: We don't consider 60 years of age old enough to abandon the farm.

Senator McGRAND: Well, perhaps 40 or 45 years of age, or at a time that he thinks of getting off the land, or is driven off by hard times, and then there is a tendency to take more and more out of the woodlot, until finally it disappears; then he leaves the land, and that must aggravate your collection of taxes.

Hon. Mr. HALIBURTON: Well, you brought up another problem, and that is taxation of woodlots. If it is taxed too high the owner just strips it.

Senator McGRAND: Strips it and leaves it.

Hon. Mr. HALIBURTON: Yes.

Senator CAMERON: There is one matter of procedure, Mr. Chairman. This is a very important matter that this committee is working on, and I feel it would be useful if say western members could have a look at some of the problems of the Maritimes, and Quebec and Ontario, and maritimers have a look at the west. The question I would like to ask the minister is this: Supposing this was arranged—and there is no decision that it shall definitely be done yet—I assume that we could count on the co-operation of the Department of Agriculture, and municipal affairs in the local district to get out and have a look at these farms, either through the D.V.A., or by some other means?

Hon. Mr. HALIBURTON: I would be very glad to.

Senator CAMERON: I think it would be helpful to get a more accurate picture if the committee did that.

The CHAIRMAN: Any further questions?

Senator BRADETTE: I have one question. I believe the minister mentioned tobacco farming. Do you go in for tobacco growing intensively in Nova Scotia?

Hon. Mr. HALIBURTON: No. We have been carrying on some experiments in tobacco growing which have been very satisfactory, but these were people that came down from the tobacco growing area in Ontario. We find our soil and temperature conditions are ideal for growing tobacco, and we expect that the tobacco industry will develop.

—Whereupon the committee adjourned.

Commission on Land Use
Second Session—Twenty-fourth Parliament
1959

THE SENATE OF CANADA

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PROCEEDINGS
OF THE
SPECIAL COMMITTEE OF THE SENATE
ON
LAND USE IN CANADA

No. 9

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WEDNESDAY, MAY 27, 1959

THURSDAY, MAY 28, 1959

The Honourable Arthur M. Pearson, Chairman

The Honourable Henri J. Bois, Deputy Chairman

WITNESSES:

The Honourable Newton P. Steacy, Minister of Agriculture, Victoria,
British Columbia and Mr. Reginald D. Gilbert, Deputy Minister of
Agriculture, Fredericton, New Brunswick

APPENDIX "C"

Brief from the Department of Agriculture, British Columbia.

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Golding	Pearson
Basha	Higgins	Power
Bois	Horner	Smith (<i>Kamloops</i>)
Boucher	Inman	Stambaugh
Bradette	Leger	Taylor (<i>Norfolk</i>)
Buchanan	Leonard	Taylor (<i>Westmorland</i>)
Cameron	MacDonald	Turgeon
Crerar	McDonald	Vaillancourt
Emerson	McGrand	Wall
Gladstone	Methot	White—31.
	Molson	

(QUORUM 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—

Resolved in the affirmative."

J. F. MacNEIL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

WEDNESDAY, May 27, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 8.00 P.M.

Present: The Honourable Senators Barbour, Basha, Bois, Golding, Higgins, Inman, MacDonald, McDonald, McGrand, Molson, Pearson, Smith (*Kamloops*), Stambaugh and Taylor (*Westmorland*).

The Honourable Senator Bois, Deputy Chairman, presided.

In attendance: The Official reporters of the Senate.

The Committee proceeded to the further consideration of the Order of Reference of Tuesday, February 17, 1959.

The Honourable Newton P. Steacy, Minister of Agriculture, British Columbia, was heard and presented a brief which appears as Appendix "C" to these proceedings.

At 10.00 P.M. the Committee adjourned until tomorrow, Thursday, May 28, 1959, at 10.30 A.M.

THURSDAY, May 28, 1959.

At 10.30 A.M. the Committee resumed.

Present: The Honourable Senators: Pearson, *Chairman*; Barbour, Basha, Bois, Boucher, Bradette, Gladstone, Golding, Higgins, Inman, MacDonald, McDonald, McGrand, Molson, Smith (*Kamloops*), Stambaugh, Taylor (*Westmorland*), Turgeon and Wall.

Mr. Reginald D. Gilbert, Deputy Minister of Agriculture, New Brunswick, was heard.

At 12 Noon the Committee adjourned to the call of the Chairman.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, WEDNESDAY, May 27, 1959.

The Special Committee on Land Use in Canada met this day at 8 p.m.

Senator HENRI C. BOIS, Deputy Chairman, in the Chair.

The DEPUTY CHAIRMAN: Honourable senators, we have a quorum. I am here tonight as your chairman, though I do not know quite why, and I am pleased to act in that capacity. We have as our witness the Honourable Newton P. Steacy, Minister of Agriculture for the province of British Columbia.

On your behalf I would welcome the Honourable Mr. Steacy, and assure him we look forward with interest and anticipation to what he will have to say. He has been good enough to prepare a summarization of the very full brief which has been distributed amongst the members of the committee, and which appears as appendix "C" to these proceedings.

Before we proceed to hear Mr. Steacy's presentation, I would ask the Clerk of the Committee to read the minutes taken at the special visit paid by members of the committee to Harrington Forest Farm.

The CLERK OF THE COMMITTEE: "Pursuant to notice, on Friday May 22, 1959, at 9 a.m. the following members of the Special Committee of the Senate on Land Use in Canada left the Senate for an informal visit to Harrington Forest Farm, in Argenteuil County, P.Q., located approximately 85 miles from Ottawa, Ontario, as guests of the Canadian International Paper Company.

Present: The Honourable Senators Pearson, Chairman; Bois, Deputy Chairman; Higgins, Horner, Inman, MacDonald, Stambaugh and Taylor (Westmorland).

Also present: The Honourable Senator Aseltine, Leader of the Government in the Senate.

In attendance: Mr. Ralph Stutt, Consultant to the Special Committee of the Senate on Land Use in Canada, and Mr. James D. MacDonald, Clerk of the Special Committee of the Senate on Land Use in Canada.

At approximately 11.30 a.m. the committee was received by the following representatives of the Canadian International Paper Company: Messrs. Vernon Johnson, President; F. A. Harrison, Vice-President and Manager Woodlands; M. R. Wilson, Resident Manager; M. M. Putnam, Division Forester; G. D. Morrison, Extension Forester; J. Salm, Superintendent Harrington Forest Farm; S. Wang, President, Industrial Cellulose Research Limited and D. E. Read, Manager, Industrial Cellulose Research Limited.

Also present were Messrs. A. Ozers, Private Forester, Pointe-aux-Chenes, Quebec; Alan Johnson, Tree Farmer, Dalesville, Quebec; and M. Graham, Teacher, Arundel, Quebec.

The Committee was informed that Harrington Forest Farm was officially opened on June 5th, 1952 and that it comprises an area of

18,114 acres of average quality forested Laurentian mountain land, of which 13,970 acres is Crown limit land and 4,114 acres freehold, and that the main objective of the Harrington Forest Farm is to be a demonstration area for proper land use.

At the present time there are 20½ miles of permanent and 11½ miles of temporary winter roads.

After luncheon the committee was conducted on a tour of the farm at which time their attention was particularly directed to approximately 200 acres of poor quality and run-down abandoned farm fields that had been restored to production by planting them with tree seedlings, either by hand or with tree planting machines.

A quarter of the 200 acres inspected is strictly experimental, mainly plantations of different provenances of the species white spruce, Norway spruce, red pine, Jack pine and European larch which are being tested on their growing and quality merits under local conditions. Provenances are trees or the progeny of trees of known origin. Of the hardwoods, only the fast growing hybrid poplars have been under investigation. Test plantations of 54 different strains have been made, of which the oldest example of seven strains established shows marked differences of growth and vigor.

After dinner the chairman, Honourable Senator Pearson, thanked the president of the Canadian International Paper Company for the splendid presentation made to the honourable senators by the officials and staff of the Canadian International Paper Company and for the excellent accommodation provided. Mr. Johnson was heard in reply and extended a cordial invitation to the committee to pay a visit to the company's plant in Gatineau, Quebec.

In the evening the committee was entertained with coloured films showing forest conservation in Canada.

On Saturday morning, May 23, 1959, the committee was conducted to a cutting operation and witnessed trees being fallen, trimmed, taken from the bush, cut in four-foot lengths and loaded on a pallet prior to being hauled to the mill. After viewing this operation the members present were conducted to a reforestation site and witnessed trees being planted by machine.

After dinner the committee embarked for Ottawa where they arrived at 4.30 p.m."

The DEPUTY CHAIRMAN: I will now call upon the Honourable Mr. Steacy.

Hon. Newton P. Steacy, Minister of Agriculture of the province of British Columbia:

Mr. Chairman and honourable senators, it is indeed a privilege to accept your kind invitation to come here from British Columbia, more commonly known as God's gift to geography—and I think Senator Smith will agree with me on that—to present to you a brief dealing with the small farm situation in British Columbia.

I have a brief here which is in great detail and having maps and appendices attached to it which you will be able to peruse and in doing so be informed on the conditions that exist in British Columbia. The first 14 pages of the large brief give a description of British Columbia and the conditions that exist there, as I see and understand them. You will be able to read that at your leisure and learn from it the problems that confront us. The following parts of the brief outline the conditions that exist in the province of British Columbia,

but rather than take the time to go through 56 pages I have prepared a short abstract of the brief a copy of which I hope you all have. It is a breakdown of the larger one, and will take only a few minutes to read.

The DEPUTY CHAIRMAN: The complete brief will be printed as an appendix and will be available for honourable senators to read and study.

Hon. Mr. STEACY: With your permission, Mr. Chairman, I will read the summary.

British Columbia is not generally considered an agricultural province. In contributions to the provincial economy, agriculture, with a cash farm income of \$121,227,000.00 in 1958 ranks third to forestry at \$570,000,000.00 and mining, including petroleum production, at \$153,900,000.

Topography: British Columbia has a rugged, mountainous terrain and limited acreages of agricultural land. Its topography is described in the early pages of the large brief.

Land Acreage: The total area of the province is estimated at over 234 million acres. The present acreage in farm lands is estimated at over 4,700,000 acres with just over 1 million acres in crop. These figures are fully explained in the statistics in Appendix B which is attached to the brief.

Population: This represents .63 acres per person of the March, 1959 population of 1,567,000.

Potential agricultural land awaiting development is over 4,600,000 acres—mostly in central British Columbia and the Peace River.

The climate is described in Appendix N, and it has been stated that British Columbia has 10 different climatic zones. A fuller description of them is in the brief. The climate in several regions is so favourable that a great many people retire or seek employment in British Columbia.

Irrigation is desirable or essential to crop production in all areas from Vanderhoof south, due to low precipitation in the growing season in many districts. Vanderhoof, in case you do not know where it is, is exactly in the centre of British Columbia, some 72 miles west of Prince George.

Irrigated Acreage: There are 214,000 acres under irrigation, which is over 21 per cent of all the land in crop.

25 per cent of the irrigation is in organized districts, the balance representing individual farm projects.

Annual charges are \$15 to \$25 per acre with some districts less and others more. It is estimated a further 400,000 acres could be irrigated.

Acreage Under Dyking and Drainage: This is shown in Appendix C of the large brief. 250,000 acres of the best land in the province—25 per cent of all the land in crop—has been reclaimed by dyking and drainage and is so maintained, and is mostly in the Fraser Valley. Annual charges run as high as \$13 per acre.

Topography and geography place many acres of production and potential production long distances from the large consumer group in the greater Vancouver area—70% of the provincial population—and involves heavy freight charges.

British Columbia is a large importer of many agricultural commodities.

British Columbia is situated advantageously for movement of foodstuffs from Alberta, Washington, Idaho, Oregon, California and other U.S. areas.

British Columbia has 24,728 farms. In 1956, 33.5% were 10 acres or less in size. The largest percentage of part-time farmers in Canada.

British Columbia has the highest industrial wage rate in Canada. Prices of farm products will not permit farmers to compete on equal terms for available labour. This is one reason for substantial mechanization of B.C. farms.

Total capital investment in the B.C. farm business is approximately \$500,000,000. Estimated there is at least \$12,000 invested for every farm worker.

*Factors that Result in Non-economic
Farm Units in British Columbia*

The three main factors are (a) Historical (b) Physical and (c) Economic.

In further explanation, farm settlement followed fur-trading, mining, logging and fishing. The topography limited the total extent of potentially good land and the areas suitable for individual farms.

Poor transportation in early days ensured high, sometimes fabulous, prices for local grown produce.

This situation changed as roads and railways brought in commodities from areas of lower production costs.

The development of farms of adequate size from forest and brush covered lands is slow and expensive.

The high initial cost of establishing and maintaining irrigation works and dyking and drainage works—and the further costs involved in rehabilitating systems that have deteriorated badly are now beyond the financial competence of the districts concerned and of the Province.

Costs of rehabilitating irrigations systems is estimated at a minimum of 3½ million dollars and that of dyking and drainage districts at 5 million dollars.

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Federal recognition of the problem and Federal financial assistance is necessary.

The establishment of permanent industries on a large scale caused a keen demand for available labour at high wage rates.

The technological advances in agriculture have adversely influenced the ability of the land-short, capital-short, less aggressive farmer to compete.

Breaking down further, we find that the following factors, in the main, influence the extent and persistence of the problem in this Province. The order in which these are shown is not necessarily significant.

1. (a) Farms situated on marginal or sub-marginal land.
(b) Crops and varieties planted in areas which are marginal or sub-marginal for satisfactory production: and growing of crops and varieties that do not have consumer acceptance.
2. The size of the farm and the type.
3. Lack of initial and working capital.
4. Poor management of land, labour, capital.
5. Lack of desire or initiative to improve.
6. Availability of off-farm work or the lack of available farm labour.
7. Conflict or competition between urban and rural development.
8. (a) Competition from imported farm produce at prices below cost of local production and often grown on lands reclaimed largely by Federal finances. (American federal finances)
(b) Vertical Integration in the United States and Eastern Canada has resulted in commodities so produced breaking the Vancouver market.
9. High prices of farm land. In many areas land is sold, not at prices that could be paid from agricultural production, but at sub-division values for residential or commercial use.
10. Lack of sound marketing co-operatives.

11. Freight rates.

In the Interior particularly, severe frost damage caused heavy losses of apple, pear, peach and apricot trees in 1949-50 and again in 1955, many trees killed and others had productivity reduced heavily, some dying even in the past year from the effects.

Similarly strawberry and raspberry plantings in the Fraser Valley were almost completely killed by the 1955 freeze.

Those disastrous occurrences contributed substantially to the problem.

The Extent and Significance and Regionalization of the Problem

The outline of conditions in the various provincial regions shows the problem is common to all.

From 25% to 75% of the total number of full-time operated farms are affected.

In other words, after all operating expenses and other legitimate charges and contractual obligations have been met, they do not produce a net income sufficient to provide a reasonable standard of living for the farmer and his family—much less a profit.

While a number of farmers are in serious difficulties and some may be almost poverty stricken, the major fraction of the sector under examination are in the group living off depreciation.

That is not good for the country!

The position is worse in some regions than others.

While certain factors are common to all, each region has some conditions that influence the situation there.

Suggestions for Improving the Situation

- (1) No new lands should be settled until complete surveys have been made to determine soil types, climate, land use and market outlets.
- (2) Farm holdings should be of adequate size to provide a proper standard of living from the type of farming to be practised.
- (3) Federal assistance in soil and water conservation, for land clearing, for developing irrigation and for dyking and drainage projects and for rehabilitation.
- (4) The Canada Farm Loan Act should be amended to provide credit to worthy borrowers on a more liberal and realistic basis than now exists. Supervision will be necessary.
- (5) Research by Federal and Provincial agencies should be increased greatly and priority determined by regional and provincial consultation. This applies to production, distribution and marketing. More economic studies are required.
- (6) Adequate extension services must be provided. Emphasis should be placed on management. In British Columbia we are doing this to a large degree on our own.
- (7) Present policies of Federal and Provincial Governments in relation to agriculture should be reviewed and changed to meet present day conditions.
- (8) Adequate protection must be given Canadian agriculture through necessary tariffs and import duties.
- (9) Federal freight assistance policy on feed grains to be continued.
- (10) Agricultural Co-operatives should be encouraged and their scope extended as one method of reducing any adverse influences from "vertical integration" and "contact farming".

- (11) There must be emphasis on a quality commodity in adequate continuous supply to meet consumer requirements.
- (12) Freight rates must not be increased.
- (13) Governments must face the need of zoning to prevent the use of good agricultural land for industrial and housing purposes.
- (14) In the interest of agriculture and of the economy as a whole, it is imperative that the position of the farmer with adequate land but inadequate income be examined critically but constructively.
- (15) Where he shows, as he often will, a definite potential for the future, he should be assisted and encouraged by departments of agriculture and by Governmental policies—new if necessary—to improve his position.
- (16) If it is advisable he be moved to another farm location, State assistance should be considered.
- (17) If he is a square peg in a round hole, he should be encouraged and assisted to move to a field of endeavour where he will be better adapted. This again may require Federal and Provincial assistance in more than one way. e.g. assistance in training and assistance in rehabilitating.
- (18) A farm holding in such circumstances could often be added to an adjacent farm to make that a more economic unit. Here again financial assistance could be necessary and a suitable Government policy should be available.

We must keep in mind that many of the farmers concerned have a definite potential as first class operators with appropriate help and guidance.

I am not referring to the part-time farmer group that will be always a different problem but not under consideration here.

In conclusion, no effort must be spared in maintaining and developing the family farm, geared to present day conditions.

That, Mr. Chairman, is an abbreviated brief of the brief that I am presenting.

The DEPUTY CHAIRMAN: First of all, sir, I thank you. May I add that I congratulate you for two reasons: The brief in itself is of much value as far as we can judge from your reading of it; secondly, on page 9 you brought in one thing that I have been expecting for quite a long time, paragraph (10):

Agricultural Co-operatives should be encouraged and their scope extended as one method of reducing any adverse influences from "vertical integration" and "contract farming".

The meeting is now open for any questions that are desired to be asked.

Senator HIGGINS: Have you a large number of small rivers in British Columbia, sir, or only a few big ones?

Hon. Mr. STEACY: We have some very large ones, and a great number of small ones.

Senator HIGGINS: Have you farms there adjacent to irrigation, or do you have to bring waters a long distance?

Hon. Mr. STEACY: In some areas we have to bring water a considerable distance, and in others they are quite adjacent to the rivers. In the Okanagan Lake and river system, which is adjacent to the valley, it runs the full length of the valley. In northern British Columbia the Skeena is a very large river, and the Fraser, which is one of our largest, 750 miles long, water is provided for the entire length. Again, there is plenty of water in the Columbia River basin. So our large rivers are adjacent to our valleys.

Senator HIGGINS: What is your precipitation there?

Hon. Mr. STEACY: In Vancouver, 60 inches; in Kamloops it is negligible, I think it is 5 to 8 inches; Okanagan, 9 or 10 inches; Prince Rupert, 125 inches; Vancouver Island about 30 inches; Caribou about 12 to 16 inches; and along the Canadian National Railway line from 12 to 20 inches; and the Peace River, 16 inches. Along the Peace River there are deep gorges and valley, and water is a serious problem.

Senator HIGGINS: You mean that some of the valley have no rain at all? The place you mentioned with about 8 inches, that is a valley, I presume?

Hon. Mr. STEACY: That is right. We have no area that do not get some rain.

Senator STAMBAUGH: When you say water is a problem in the Peace River, you do not mean you need water for irrigation purposes, do you?

Hon. Mr. STEACY: At certain times of the year irrigation would benefit the crops a good deal, but generally there is sufficient rainfall for mixed farming.

Senator STAMBAUGH: It is more for the reason that water goes to the wells that there is no water available?

Hon. Mr. STEACY: Yes, that is correct. Under our own land clearing plan in British Columbia, which I put in last session, we provided for digging waterholes for cattle and water supplies for the farmers.

Senator STAMBAUGH: Dugouts seems to be the most successful method?

Hon. Mr. STEACY: That is right; because snowfall in winter is quite heavy and sufficient moisture for the cattle available, but not for irrigation.

Senator STAMBAUGH: What percentage of what we might term mixed farmland is in the Peace River area?

Hon. Mr. STEACY: At the present time I would say it would be roughly 50 to 60 per cent.

Senator STAMBAUGH: I suppose most of it in your river valleys is more for small fruits and vegetables; there is not much grain farming along the Fraser Valley?

Hon. Mr. STEACY: No, the Fraser Valley is strictly mixed farming, with Dairy Farming predominating; but there are a lot of potatoes grown particularly on the lower mainland, as we call it, as far as Chilliwack, which is about 65 miles from Vancouver. On the bench lands irrigation would improve production on the land; and there is a river there under a metropolitan plan which could be better utilized for The Fraser Valley.

Senator GOLDING: What has happened to all the small holdings taken over at the time of the war? Wasn't that bought for veterans' small holdings?

Hon. Mr. STEACY: That would be in the section up as far as Harrison about 75 miles from the coast. Those lands have been taken up by people who would like to semi-retire, to have a few acres of land, and to be part-time farmers, who make a living in Vancouver, and who would drive in and out 30 or 40 miles each day; with the exception of the area known as the south side of the Fraser and the Pitt Meadows, which is a mixed farming area, and some grain is grown there; but it is mostly mixed farming. Dairying, potatoes and other root crops.

Senator GOLDING: Did any of the Japs go back on that property at all?

Hon. Mr. STEACY: No, I do not think there are a dozen Japs in the Fraser Valley today; it is taken up by Anglo-Saxons, Germans and others in small holdings. Unfortunately, we have run into golden Nemotode which kills off the strawberry plants in the small fruit area. This has curtailed our strawberry production resulting in concentration on other production.

Senator McDONALD: Where are the small uneconomic units located mostly?

Hon. Mr. STEACY: I would say mostly the ones causing us most concern are in the fruit valleys of the Okanagan, and the west Kootenays on Vancouver Island and the Fraser Valley sections. It is in that area that we are mostly concerned with uneconomic units.

Senator McDONALD: Can you get some of them to sell out and make larger farms, and help them by giving them farm management?

Hon. Mr. STEACY: We are working on that, senator, endeavouring to get that thought into their minds to amalgamate acreages so that they will become economic units. But then in the Creston area, on the flats, that is land reclaimed by the provincial government where there are large holdings of 150 to 200 acres, they are in mixed farming, potatoes and root crops—and some hogs, cattle and grain—crops grow to perfection on the river bottom, as we call it; but on the Bench Lands, the 40 or 50 acre fruit farms have been divided up into two and three acre lots.

Senator McDONALD: Are those irrigated lands?

Hon. Mr. STEACY: Yes, they are irrigated lands, on the benches.

Senator McDONALD: What is the value of them?

Hon. Mr. STEACY: The actual value from agriculture, or what they are getting for it, which do you mean?

Senator McDONALD: I was wondering if they were under forced sale?

Hon. Mr. STEACY: The land is selling there in the small acreage lots for \$1,000 to \$1,500 an acre.

Senator STAMBAUGH: Are you speaking of this reclaimed area?

Hon. Mr. STEACY: No, that is different; they are large holdings, and were sold at a price around \$100 to \$150 per acre.

Senator STAMBAUGH: Is that a large marsh that was drained?

Hon. Mr. STEACY: No. They put a dam across the end of the lake and put dykes there and pumped it out.

Senator McDONALD: What would you start with in what you call a satisfactory economic farm unit?

Hon. Mr. STEACY: Well, it just depends on what you want to produce. If you are going to have strawberries and raspberries, which can be grown in Kootenays but which can be grown in the lower mainland, to a greater extent nothing under three to five acres should be considered; and I don't think you should consider a farm for apples under a ten acre unit to break even on. But 40 acres would be a better unit from an economic basis.

A 20 or a 40-acre farm could be a good economic unit for apples. For sheep or cattle the economic unit would be not less than 100 acres.

Senator McDONALD (*Kings*): What about mixed farming in that area?

Hon. Mr. STEACY: We feel there should not be a farm under 50 or 100 acres used for mixed farming. That of course depends on the type of production the farmer is interested in.

Senator McDONALD (*Kings*): What would an average size farm be worth there?

Hon. Mr. STEACY: Well, just recently 1,000 acres sold for one million dollars. But the land is selling for anywhere from \$1,500 or \$2,500 an acre on resale. At least that is what they are getting for it but for agricultural purposes it is beyond its value.

Senator McDONALD (*Kings*): Has the standard of living been raised in recent years in your area?

Hon. Mr. STEACY: In the dairying industry, yes. In the lower mainland those engaged in the dairying industry have been most successful. They are

going in for mechanized automation and silage feeding which cuts down the number of acres they have to have and allows for an increased production. With a herd of around 100 head it can be said that a farmer is in a profitable operation. The poorer type of operator will eliminate himself by poor working methods.

Senator PEARSON: Where do you get most of your feed?

Hon. Mr. STEACY: Locally, the Peace River District... from Idaho and Washington. We bring in hay from Moses Lake (in Washington) at anywhere from \$15 to \$22 a ton. If we go to Creston Valley the freight rate is about \$17 a ton and we cannot ship to the Coast to allow shippers to get their costs of production from their shipments because the freight charges just kill it. I am advocating that they go in for feeder lots and feed their own grain and hay and market it through the cattle hogs and sheep, putting it on a profitable basis by merchandising their product through their stock.

Senator STAMBAUGH: Is not a great deal of the prosperity you speak of in the dairying industry in the Fraser Valley because they are in the Vancouver milk shed?

Hon. Mr. STEACY: That is correct. They have a market at their door. We have there a milk board which is Government-controlled. The price is set by that board and is based on the cost of feed, labour and cost of operations (and the distributors or vendors have to pay the price that is set by the milk board. They are making good money and are all quite happy.

Senator STAMBAUGH: If they had to sell their milk made into butter and cheese I suppose they would not be so successful?

Hon. Mr. STEACY: In cheese, they would be out of business. In British Columbia we cannot make butter on a profitable basis, we do not make great quantities of butter in British Columbia; we import it from Alberta, and of course that is good for Alberta.

Senator STAMBAUGH: But it is really the Vancouver milk shed which brings on that prosperity for the dairying industry.

Hon. Mr. STEACY: Not only in the Van milk shed, but the market in the Okanagan. Do you know where the city of Vernon is? Well, about 15 or 20 miles south of there is what I call the north Okanagan. There should not be a fruit tree north of Vernon from an economic point of view, it should be in mixed farming north as far as Salmon Arm. All those areas should be engaged in dairying and mixed farming only as this district supplies the entire Okanagan Valley as well as the area west to Kamloops on mixed farming products.

Senator STAMBAUGH: There is an extensive production of fruit in that area, is there not. (Alluding to Salmon Arm District).

Hon. Mr. STEACY: It is dying very fast. Salmon Arm was producing between 350,000 and 450,000 boxes of apples a year and this last year they were down to 100,000 cases, they have closed down their storage plants in that area. They are enlarging their mixed farming operations and rightly so.

Senator PEARSON: Where would your beef cattle area be?

Hon. Mr. STEACY: It would be in the Kamloops district and the Nicola-Merritt district. And then there is another section which is a very good cattle country, lying a few miles north of the C.P.R., between there and along the Canadian National Railway, known as the Cariboo the Chilcotin. The Peace River District is also a large producer of cattle.

Senator PEARSON: Are they successful in that area?

Hon. Mr. STEACY: Very. It is largely cattle.

Senator PEARSON: Are they raising their own feed?

Hon. Mr. STEACY: No, but they raise some. In the Chilcotin and Quesnel areas and Dog Creek they grow some of their own feed.

Senator PEARSON: Can feed be brought in from the Peace River area?

Hon. Mr. STEACY: We do. Shipments are limited to present production and is being increased.

Senator PEARSON: What type of soil have you got in the Peace River area?

Hon. Mr. STEACY: It varies. It goes from a black degraded soil in the river bottom to brown degraded and grey wooded, there is also some leached land in certain areas.

Senator TAYLOR (*Westmorland*): Referring to the formula, does the milk board establish their price based on a certain or definite formula?

Hon. Mr. STEACY: Yes, it is established on the cost of feed, the feed that the cattle are fed, and operational costs of the farm, and all other costs. It is set every month.

Senator TAYLOR (*Westmorland*): Every month?

Hon. Mr. STEACY: Yes, Every month. The chairman and his board set the price. We divide British Columbia into different zones, The Okanagan Kamloops area, the Fraser Valley and Vancouver Island prices are at present approximately receiving \$5.75 a hundred weight for 4 per cent milk and it was as high as \$6. It has not been below \$5.65 for No. 1 for sometime. The price is spread for No. 2 and number three. No. 1 is fluid milk sold on the fluid market for consumption, No. 2 goes into manufacturing and No. 3 is what we call surplus, which can be diverted to the use required.

Senator STAMBAUGH: Is No. 3 a quality that is used for ice cream?

Hon. Mr. STEACY: Yes. It can be.

Senator SMITH (*Kamloops*): Are the highlights of the McFee report incorporated in this brief?

Hon. Mr. STEACY: Yes, I brought a couple of copies of that report with me for the use of the Committee.

Senator SMITH (*Kamloops*): That is a very valuable report.

Hon. Mr. STEACY: It is one of the finest commission reports that we have ever had. It may be used as a guide for the operations of all types of farming.

Senator GOLDING: I do not know whether I got all that you said or not, but could you tell us what the milk consumer pays per bottle?

Hon. Mr. STEACY: 3.5 per cent milk in Vancouver is retailing at 22 to 24 cents a quart; in Victoria it is 23 and 24 cents; in Prince Rupert it is 31 and 32 because of the freight rates north and because it is a deficiency milk area. A considerable quantity of milk is shipped from Vancouver Area Supplementary Northern Production.

Senator GOLDING: It is 21 cents a quart in my district, which is in western Ontario.

Hon. Mr. STEACY: We have none selling at that price. It is 3.5 per cent milk being distributed to the Consumer.

Senator TAYLOR (*Westmorland*): Is milk handled by the board or by private individual companies?

Hon. Mr. STEACY: We have a diversity of that. Before answering that may I explain that on Vancouver Island there is one price, another price in the Okanagan, Armstrong and Vernon areas and that area generally, and

Kamloops. They pay a lower price there because of the lower cost of feed. I think the price there is somewhere around \$4.90 or \$5.00 per hundred pounds for 4 per cent milk at the present time, but it is based on the same factors as the lower mainland price.

The milk board have only one job to do and that is to set the price to the producer. They will not interfere with the consumer's price, competition takes care of that. The milk board allocates the amount of milk on a quota basis to the vendors or distributors and they all buy their milk from the farmer at the price set by the milk board.

In Vancouver city, strangely there are only four major distributors, such as Palm Dairies, Richmond Dairies, Guernsey Distributors and Jersey Farms. There are only two producer-vendors in the Vancouver area. But on Vancouver Island there are the same names I have mentioned as independent companies, and there are about 25 producer-vendors. But they are fast going out of business and becoming localized into larger distributors.

Senator TAYLOR (*Westmorland*): May I ask another question? In the small holdings, particularly in the Okanagan Valley, has there not been a tendency to increase the acreage of the holdings in the past 10 years?

Hon Mr. STEACY: I would say not yet. We are working on that through Tree Fruits Ltd. We have in the Okanagan Valley a co-operative movement, the producers themselves, who own the co-operatives and is known as Tree Fruits Limited. It is a one desk operation; everything is controlled by themselves from production to sales. We are now working with the horticulturists in an endeavour to get an amalgamation of the non-economic units to cut the costs of operations. In other words we are trying to get units of four, five or ten acres or larger to use one spraying outfit and other equipment. We have been successful in one district, the Renata district in the Arrow Lake area, where they grow nothing but cherries. If we are successful in getting a group to buy one sprayer or other equipment we are able to reduce their operation costs. I do not think a fruit farm should be less than 10 acres; it should be more like 30 or 40 acres, particularly on apples, peaches and pears. Cherries could survive on smaller holdings as can small fruits.

Senator McDONALD (*Kings*): Even with a 10-acre farm, you could hardly afford to buy the most expensive equipment.

Hon. Mr. STEACY: No. If you do, you will go broke eventually. Over capital investment beyond a profitable return only spells out financial loss.

Senator TAYLOR (*Westmorland*): I was in the Okanagan Valley in 1950, and the small holder was then facing a serious problem with relation to the cost of land by reason of the fantastic prices they were then paying.

Hon. Mr. STEACY: Quite true. I remember farms up there being sold at \$100 an acre. I know one particular farm that sold for that price; the man built a house on it, and then sold it for \$15,000; it was re-sold at \$15,500; it was again re-sold at \$22,000, and the last sale was at \$27,000. That is plain insanity.

Senator HIGGINS: What is the average size fruit farm in the Okanagan Valley?

Hon. Mr. STEACY: 53 per cent of the farms are under 7 acres, and another 25 per cent are under 10 acres.

Senator HIGGINS: How long have you been Minister of Agriculture?

Hon. Mr. STEACY: Four years.

Senator HIGGINS: I thought you had been minister for 20 years, in view of the rapidity with which you can answer the questions.

Hon Mr. STEACY: I have been in agriculture all my life.

Mr. STUTT: Are there a number of V.L.A. holdings in the small group?

Hon. Mr. STEACY: Not many; I can't give the figure off-hand.

Mr. STUTT: I wondered if there were a number in the problem group?

Hon. Mr. STEACY: There are some in the small group, but not in the 2½ and 5-acre group. I do know there are some over 10 acres. We work with the V.L.A. men closely and get good co-operation from them.

We are trying to get the whole group to go into larger holdings, otherwise they cannot succeed. When the farm keeps the farmer, that is as it should be; but when the farmer starts keeping the farm, that is a ridiculous situation.

Senator TAYLOR (*Westmorland*): Has the province of British Columbia a Farm Loan Act or a Farm Settlement Act?

Hon. Mr. STEACY: No, we do not have a Farm Loan Act. However, last year I put in a change in our Land Clearing Act, which is the only thing we do in British Columbia. Up until four or five years ago we had a very impractical set-up: we would lend a man \$1,000 for four years at 5 per cent. I recall when I was a boy we cleared land with a team of horses, but today it is a completely mechanized operation. You break the land one year, pile the tree stumps, and burn them the third year. When you may get a wet season, then you can't burn it. Then you are into the fourth year and you haven't any money.

I have changed that. We now lend up to \$5,000 at 4 per cent interest for 20 years, and we absorb the difference on the interest. A new farmer just going on the land would not have to pay anything back for three years other than his interest, but an established farmer must start paying the loan back the first year. He may borrow anything from \$100 up to \$5,000, and he must pay it back within 20 years. It is placed against his taxes. I am glad to say we are getting requests now for \$2,000 and \$3,000 for land clearing loans. This is all we are doing by way of helping farmers to clear land in British Columbia. We have assistance for purchasing sires.

Senator TAYLOR (*Westmorland*): What do you consider the greatest problem facing the farmers in British Columbia? Is it the small holdings?

Hon. Mr. STEACY: That is what is causing the most serious concern. If we can't rectify that problem, they are going to go out of business which may save them further losses.

Senator McGRAND: Does the matter of vertical integration lend itself well to the province of British Columbia? My second question is does British Columbia have many farms with woodlots attached, where the farmer can get revenue from the woodlot as well as the farm?

Hon. Mr. STEACY: Yes, there are several farms with wood lots.

Senator McGRAND: What types of wood do they have?

Hon. Mr. STEACY: Cedar, fir, spruce, hemlock—and all kinds of coniferous woods.

Senator McGRAND: In what part of British Columbia do you find that situation?

Hon. Mr. STEACY: In every part, except in the meadows or plains or open country areas.

Senator STAMBAUGH: You do not have much of it in the Peace River area?

Hon. Mr. STEACY: Yes, we have plenty of pulp timber in the Peace River. There are some areas that are fairly open prairies, but there is plenty of spruce from which they make excellent pulp.

As to vertical integration, I would say that is one of our problems in British Columbia not that it is in practice there but that system is in vogue in the United States and here in eastern Canada effecting our producers in

British Columbia. But in my opinion vertical integration leads to surplus production and ultimate loss to the individual developments of our farmers. A certain type of people inveigle the farmer into using the other fellow's money, and he becomes a servant of the man who advances the money; the farmer loses his identity and he is no longer an individual developing himself using his own initiative. They force him into mass production, the market becomes flooded, and there is a surplus, such as is happening in the United States. Thus prices deteriorate.

Last year we had that problem with respect to poultry. Six carloads of broilers came into Vancouver from Georgia, and forty-six carloads went into San Francisco. The financiers who controlled the operation made a fair profit on about 80 per cent of production and sloughed off the other 20 per cent to get rid of it, the farmer was the loser, and the market was over-supplied. Our British Columbia poultry producers suffered from the imports and prices below their cost of production.

Senator MacDONALD (*Queens*): I want to ask a question. You say on page 1 of your abstract of the brief:

"In contributions to the provincial economy, agriculture, with a cash farm income of \$121,227,000.00 in 1958 ranks third to forestry at \$570,000,000.00 and mining, including petroleum production, at \$153,900,000.00."

How much of that \$2,227,000.00 was controlled under the co-op movement?

Hon. Mr. STEACY: The dairy business in the Fraser Valley is under the co-operative movement, and our dairy business last year was approximately \$32,000,000.00. The fruit industry in the Okanagan which is on a co-operative basis was approximately \$17,000,000.00. Beef cattle is around \$30,000,000.00.

Senator STAMBAUGH: Is a very large percentage of the beef cattle co-operative?

Hon. Mr. STEACY: It is co-operative and it is not. It is not co-operative as are the tree fruits and the dairy industries. They have their own association and they work through that. It is a united effort, but it is not co-operative to the extent that the dairy and fruit industries are. The producers are individual operators. Does that answer your question?

Senator MacDONALD (*Queens*): I am going to press it a little further. Do your potatoes, and so forth—

Hon. Mr. STEACY: Yes, they come under vegetables—marketing boards that are co-operatives under government supervision. I am speaking only from memory on this, and I am not sure of the figure—I am sure of those other figures that I gave—but our root crop last year was \$7,000,000.00; or somewhere in that vicinity.

Senator MacDONALD (*Queens*): I know you people some years ago used to come up to the National Dairy Council meetings. I just forget the name of the gentleman who represented British Columbia. I think he has probably retired now, if he is still living. He had a lot to do with the dairy business.

Hon. Mr. STEACY: Alec Mercer?

Senator MacDONALD (*Queens*): Yes. Is he alive yet?

Hon. Mr. STEACY: Yes, very much alive. He is a fine gentleman and one of the stalwarts of the dairy industry.

Senator MacDONALD (*Queens*): Yes, he is one of the best. What I was getting at, though, was that when you people in British Columbia were getting \$3.50 per 100-pound bag of potatoes we were only getting 75 cents, and that was because of your co-operative method, or your marketing board.

Hon. Mr. STEACY: That is partly correct, but our wages out there were \$12 and \$15 a day in the labour field. Our wage scale in British Columbia is so far beyond anything else in Canada that it is the cause of increased costs. You cannot hire a farmhand, a labourer, there under \$1.70 an hour for casual labour on the open labour market.

The DEPUTY CHAIRMAN: If a distributor buys the milk from the farmer at \$5.90 and he distributes the same at 22 to 24 cents per quart, it seems to me that the price to the consumer is too low.

Hon. Mr. STEACY: It is too low from a profit point of view, and our distributors are experiencing financial troubles at their present retail level price.

Senator MACDONALD (*Queens*): Mr. Chairman, there is just one more question I wish to ask. How many marketing boards have you in British Columbia?

Hon. Mr. STEACY: There are the Tree Fruits Marketing Board, the Milk Board and the Vegetable and Root Crops Marketing Board.

Senator MACDONALD (*Queens*): The last one covers potatoes?

Hon. Mr. STEACY: Yes, potatoes and all root crops and vegetables.

Senator TAYLOR (*Westmorland*): Is that last name you mentioned two separate boards?

Hon. Mr. STEACY: Yes. There is the Interior Vegetable Marketing Board and the Coast Vegetable Marketing Board. The Interior board takes in all vegetable crops in the Interior and the Coast board mostly potatoes grown in the Coastal areas.

Senator MACDONALD (*Queens*): You are sitting in the top echelon of your Government out there. Have you found marketing boards to be a good thing or not?

Hon. Mr. STEACY: Excellent. Without them we would be in chaos.

Senator PEARSON: I would like to ask a question in reference to Appendix E in the large brief. Outside of the East and West Kootenays you show an increase in farm population practically all the way through. There is a standstill in Vancouver Island, but all the rest shows an increase.

Hon. Mr. STEACY: Yes.

Senator PEARSON: On the other hand your acreages of the small farms are decreasing—that is in the one to four-acre class—and the others are increasing. How do you account for the increased population and also the increased size of the farms?

Hon. Mr. STEACY: That is what I have been explaining, that we are trying to encourage the increase on the basis of larger holdings.

Senator PEARSON: I know you are trying to increase the size. You must be bringing more land under cultivation.

Hon. Mr. STEACY: Yes, we are.

Senator PEARSON: And your population indicates that there is money to be made in farming in British Columbia, otherwise your population would not increase.

Hon. Mr. STEACY: In the Okanagan, and that particular area is where we are having difficulty with people who are not farmers coming on to that land. They think it is a nice place to live but we must increase production to cope with the growing province with men who can develop economic farms.

Senator PEARSON: Yes, that is the small two-acre farm?

Hon. Mr. STEACY: Yes, the small uneconomic units.

Senator PEARSON: You call that a farm, but actually it is a part-time thing?

Hon. Mr. STEACY: Yes, but I do not know how we are going to overcome this condition other than to encourage by education the need for economic units.

Senator McDONALD (*Kings*): How many of these people who have gone on to those small farms are retired people?

Hon. Mr. STEACY: I would say 30 or 40 per cent of them.

Senator STAMBAUGH: You have a lot of them coming in there from the prairies, have you not?

Hon. Mr. STEACY: Yes, that is right. Unfortunately, they are retired bankers and businessmen who do not know a peach tree from an apricot tree, but because it is such a nice place they want to come in there and establish themselves, and we are in trouble on their operations.

Senator STAMBAUGH: Their pension does not buy as much as they thought it would?

Hon. Mr. STEACY: Yes, and the dollar does not buy so much as it did when it was taken out as insurance protection say, in 1921.

Senator PEARSON: Is there any tree farming there?

Hon. Mr. STEACY: That comes under the Department of Forestry and Lands, and we are encouraging tree farming. The larger logging operators are doing a great deal of it, and so is the forestry department. Senator McGrand asked about wood lots. We are encouraging people to go on to land where there is sufficient spruce, fir or hemlock—they are the principal ones—which gives them an opportunity to cut timber on their own farms and get a return from it, and at the same time they are clearing the land for agricultural purposes.

Senator MACDONALD (*Queens*): I have just one more question and I am sorry for having to bother the minister—

Hon. Mr. STEACY: You might as well; everybody else does.

Senator MACDONALD (*Queens*): I am down at the extreme east of the country from where you are, and our cash crop there is potatoes. I want to ask you a straight question: Do you grow enough potatoes in British Columbia to supply your own market?

Hon. Mr. STEACY: No, sir, we do not.

Senator MACDONALD (*Queens*): Then, you import a lot of potatoes?

Hon. Mr. STEACY: Yes, from Washington and Idaho, Alberta and some from Eastern Canada.

Senator MACDONALD (*Queens*): Where does the marketing board fit in on that?

Hon. Mr. STEACY: Well, we are able to dispose of all we produce in British Columbia, and if we increase our production we are hoping to have border protection on tariff to force the American price, which is lower than ours, to go up to a price where it is not below our cost of production. We do not border control to prevent imports, but we would like it based on the cost of our production that can cripple our producers. I can give you an example of how imports affect us in B.C. We have a little town called Prince Rupert, and another place called Kitimat. They use a million pounds of potatoes there a year, and 68 per cent of them came from the United States. We still have much work to do on increasing our production, and we are working on it, but with the aid of the federal Government we lend money to the growers to build potato houses, a place where they clean, pack and grade them, and get the standard up to what it should be. That is helping us to increase our production. We have five potato house within the Province at the present time and two under construction.

Our horticultural branch is working with the producers and with the use of chemical fertilizers we are increasing our production as well as increased acreage.

Senator TAYLOR (*Westmorland*): What do you consider to be a good yield of potatoes in the Fraser Valley?

Hon. Mr. STEACY: I cannot answer that question exactly. It varies. It alters in that part of the province where there is too much moisture. Where there is just enough moisture the potato yields vary, and in the other areas it is not to great. It is a matter entirely of local condition.

Senator MACDONALD (*Queens*): Have you ever heard of a yield of 600 bushels to the acre?

Hon. Mr. STEACY: No.

Senator MACDONALD (*Queens*): Well, we have such a yield in the east.

Senator SMITH (*Kamloops*): That is why they can afford to sell those P.E.I. potatoes so cheap.

Hon. Mr. STEACY: Another thing is variety. If we grew Sebago or Green Mountains we might be better off, but our people went into growing Netted Gems, which may not give as good a yield as some other varieties but they are best suited to suitable soils by areas. Lumbering camps and other large potato users have potato peeling machines with which they peel the potatoes. The machine cleans them, but they have to be smooth in order for the machine to be effective. They want the type of potato we grow.

Senator MACDONALD (*Queens*): We are growing those varieties in the east too.

Hon. Mr. STEACY: They may not be as big a producer as your varieties, but we are now getting a demand in B.C. for potatoes to be used for potato chips. That may utilize some other varieties such as you mention and I trust will yield in quantities nearly as good as you suggest.

Senator MACDONALD (*Queens*): As I understand it, the best potato is the Sebago. They are a big potato.

Hon. Mr. STEACY: That may be right. We don't grow them in British Columbia because we find they are not acceptable to our market.

The DEPUTY CHAIRMAN: Are there any more questions?

Hon. Mr. STEACY: Gentlemen, I would like to mention a project we are working on. We are developing silage feeding and pellet feeding in our cattle. Particularly in feeder lots which is proving highly satisfactory.

Senator STAMBAUGH: What are you using?

Hon. Mr. STEACY: Alfalfa, Brome grass and Alta Sweet etc.

Senator STAMBAUGH: Do you use very much Alta Sweet?

Hon. Mr. STEACY: Yes, and a lot of alfalfa in the higher and drier areas. We have one interesting project. I think Senator Smith might know about it. Senator, are you aware of the project at Lillooet?

Senator SMITH (*Kamloops*): Yes.

Hon. Mr. STEACY: We have 285 acres there under an irrigation experimental plan. The British Columbia Electric Company put in the installation, spending \$265,000 doing it. They take three crops a year off those 285 acres. The first year we had 50 head of cattle, the second year we had 450 head and this year we hope to have 500 head. They are fed in the corral and they are never allowed out, except that they do have a maternity ward where a cow can have her calf. They are there for a month and then they go into the big corral and never leave it.

Senator STAMBAUGH: Is it mostly alfalfa you feed them?

Hon. Mr. STEACY: We are using a general mixture of grasses for feed including alfalfa, Brome grass, Alta Sweet and corn etc.

Senator STAMBAUGH: Any sunflower?

Hon. Mr. STEACY: Not at all. We do use some corn. As a matter of fact, we would rather grow oats than sunflower. We find it gives better results and more profitable?

Senator MACDONALD (*Queens*): Have you a year-round grass there?

Hon. Mr. STEACY: Not in the interior, but we do in the Fraser Valley with the exception of six to eight weeks.

Senator MACDONALD (*Queens*): We have six months of snow where I come from.

Hon. Mr. STEACY: You should move out to our country.

Senator HIGGINS: Do a lot of non-farmers live in the Okanagan Valley?

Hon. Mr. STEACY: Yes, many of them. I would say that only 25 per cent of the people there are farmers.

Senator HIGGINS: Is that one of the places you mention in your brief where people go to live and not to work?

Hon. Mr. STEACY: Yes. They move there to retire.

Senator HIGGINS: I only go by what I hear about the wonderful Okanagan Valley.

Hon. Mr. STEACY: That's right. It is a beautiful country with a lovely climate. It is a little cold in the winter but they like it because it is a lovely place to live. That is what gets us into trouble with these small holdings. Money doesn't seem to be a factor.

Senator MACDONALD (*Queens*): I have one more question. Is there any good fishing out there?

Hon. Mr. STEACY: The best in the world. In the northern part of the province you can catch rainbow trout weighing up to 27 and 28 pounds.

The DEPUTY CHAIRMAN: Mr. Steacy, on behalf of the members of the committee I wish to thank you very much for appearing before our committee this evening and presenting your splendid brief. Thanks to you our discussion has been most enlightening.

The committee thereupon adjourned.

OTTAWA, Thursday, May 28, 1959.

The Special Committee on land use in Canada met this day at 10.30 a.m.

Senator ARTHUR M. PEARSON in the Chair.

The CHAIRMAN: Honourable senators, we have a quorum so we will start the meeting. We have with us this morning Mr. Gilbert, the Deputy Minister of Agriculture for New Brunswick. He tells me that the Hon. Mr. Sherwood wants to express his regret at not being able to get here. He would have liked very much to have been here, but he has sent Mr. Gilbert who is a worthy exponent of agriculture and who will be able to fill his position very well. I will ask Mr. Gilbert to explain his qualifications, et cetera, before we start so that we will know just who he is.

Mr. R. D. GILBERT, *Deputy Minister of Agriculture, province of New Brunswick*: Mr. Chairman, and honourable senators, I was raised on a farm in the lower Saint John Valley of the province of New Brunswick, and after having completed high school I attended and graduated from the Nova Scotia Agricultural College—

Senator McDONALD (*Kings*): Good.

Mr. GILBERT: Yes, I am very proud of that, Senator McDonald. From there I went to MacDonald College from which I graduated in 1935 and where I got my degree. On graduation I joined the Canadian Department of Agriculture and was there for a period of one year doing research work. In 1936 I joined the New Brunswick Department of Agriculture. At that time it was under the direction of one of your own number in the person of Senator Taylor from Westmorland. I served as District Agriculturist in two areas of the province between 1936 and 1944, and as an agricultural representative, and in 1944 I was appointed Director of Agricultural Education for the province and in 1957 I was appointed Deputy Minister of the Department. That, sir, I think, briefly, is my background, agriculturally speaking.

Before referring to the brief, copies of which have been placed in your hands, I would like to take this opportunity, Mr. Chairman and honourable senators, of expressing the appreciation of the New Brunswick Department of Agriculture for the opportunity given us to appear here this morning on this topic of the small farm as related to land use in New Brunswick. This is a very important problem to us and I can assure you that we look forward with interest to your deliberations and to the recommendations which will be forthcoming. Having said that I think I shall refer to the brief and stick pretty closely to it.

Small farms in New Brunswick are a heritage from the days of early settlement. During that period the need for maximum self-sufficiency dictated that practically every settler claim an area of land from which to wrest most of his basic requirements.

At that time, too, water provided by far the most ready means of transportation so it was inevitable that the lands first claimed should be those lying along or within easy reach of the coasts, streams and lakes. Except where the natural characteristics were entirely forbidding, such lands were claimed without much regard to their suitability or potentialities.

Thus land was parcelled out in relatively small holdings suitable to the needs of the day. Probably one hundred acres was the most commonly claimed unit. Time proved, in the great majority of cases, that only a minor part of each hundred acres was suitable for agricultural development. Nevertheless there had been established a pattern of actual land division and, equally important, a mental pattern or ownership objective among the people. Notable exceptions existed from the first and whole areas have since developed a different perspective but small-farm-mindedness has continued to be an important factor in the situation down to the present day.

It should be pointed out, however, that for many years the small farm continued to yield a perfectly satisfactory standard of living. Where the land was suitable and ready market outlets developed the emphasis was upon agriculture. Thirty-five or forty acres of improved land per farm raised it to the stature of main enterprise, usually supplemented to some extent by income from the farm woodlot or from work off the farm. Where agricultural conditions were less favourable fewer acres were cultivated and supplementary activities such as fishing and woods work were more fully exploited and more largely depended upon. In either case these establishments, by and large, down through the years and into the early decades of the present century continued to provide livelihoods of a standard generally comparable to any that might have been earned by these same people elsewhere in other occupations.

Doubtless this situation was gradually changing prior to World War II. The industrial and commercial development of Canada was creating other and more lucrative opportunities for employment. The advent of the automobile, the telephone and a variety of electrical equipment was introducing to the

rural areas a new way of living, the maintenance of which required a much higher cash income and cash expenditure than had been traditional. The war-stimulated boom in industry greatly speeded and emphasized these trends. The rapid mechanization of agriculture, triggered by manpower shortage and stimulated by the possibilities of greatly increased producing efficiency added capital costs which could be borne only by sizable operations and volume production. Popular demand for improved educational facilities and public services in general resulted in mounting taxation. Agricultural prices fell far short of keeping pace with the general upward trend. In other words margins of profit narrowed and the only means of obtaining the total revenue needed to meet the advancing costs was to increase the volume of saleable commodities per farm. Obviously the limitations of consumption rendered impractical the adoption of such a course by all then-existing farmers. Besides, on many individual farms the want of suitable land, of sufficient capital or of adequate manpower placed such a move in the realm of impossibility. Alternatively many small farms went out of operation. The census of 1941 reported New Brunswick to have 31,889 farmers. That of 1956 reported 22,116 farms, a drop in number of 30.6%, of which an inconsiderable fraction can be attributed to difference of definition used in the two reports. The same period witnessed an increase in the average acreage of improved land per farm. This increase varied from zero in several counties to 12 acres per farm in the county showing the highest gain. In general the larger average increases took place in the recognized better agricultural areas.

Small farms continue to exist in all parts of the Province but they are much more general in some areas than in others. For instance the north-eastern section of the Province, including that part of Restigouche County lying along the Bay of Chaleur, Gloucester County, Northumberland County and Kent County north of the Richibucto River, is an area in which the improved land averages approximately 20 acres per farm. Carleton County farms, on the other hand, have an average of 89 improved acres each. Westmorland, Albert, Kings, Victoria and Madawaska Counties, together with southern Kent County and the St. Quentin-Kedgwick area of Restigouche County, have averages ranging from 50 to 60 acres while the remaining counties vary from 30 to 40 acres of improved land per farm. This data is presented with full realization that acres of improved land and size or scope of operations are not necessarily synonymous. However as agriculture is generally practised in New Brunswick, the one is a reasonably accurate criterion of the other.

These averages of improved land indicate, particularly in certain parts of the Province, that many undersized producing units still remain even when due allowance is made for considerable supplementary revenue from forest or fisheries. Provincial deficiencies in certain agricultural lines, notably meats and poultry products, provide more opportunities for local expansion of production than exist in some parts of this continent, faced as it is with substantial surpluses of various agricultural products. The full exploitation of such opportunities is a sound and reasonable objective. Even so, the remaining necessary adjustments scarcely can be accomplished by the process of expansion alone. In some degree, further transfers to other occupations are required to make room for the necessary enlargement of the farms that remain.

The remarkable progress of such transfers in the past fifteen years, prompted only by the existence of opportunity, provides good grounds for hope that they will continue in the same way to the necessary point of balance if an approximation of the same conditions can be maintained.

It is partly with this in mind that the Government of New Brunswick is active in encouraging the development of industries, large and small, through its Department of Industry and Development, through a crown corporation

recently established for the purpose and through the electric power development program to which the Government of Canada is granting substantial assistance. Such industrial developments are of vital importance since they not only provide opportunities for those displaced from farming, but at the same time build up consumer population to provide increasing home markets for those who remain on the land.

In some parts of the Province small farming activities combined with seasonal work at lumbering or pulpwood cutting, have provided satisfactory livelihoods for many families down through the years. There seems no reason why this cannot continue into the future if the farming practices are adjusted to present-day conditions and provided the lumber and pulp interests can achieve some success in stabilizing the income of these people by minimizing the tremendous periodic fluctuations in price and in demand for raw products which have characterized these industries in the past. Failure to accomplish this must result, in the long run, in these people seeking forms of employment which offer less variable rewards. Much the same may be said with regard to fisheries and the efforts being made under the leadership of Canada and New Brunswick Governments to improve and stabilize that industry.

The role of the woodlot in the over-all farm economy has come in for reappraisal, particularly in the dominantly small-farm areas. Realization has awakened to the possibility that the necessary expansion of operations and of income may be achieved by improving or enlarging the farm woodlot as well as by stepping-up the more conventional agricultural activities. In other words, trees are coming to be recognized as a farm crop. A co-operative program of extension work in farm forestry has been initiated through the joint efforts of the University of New Brunswick, the Department of Lands and Mines, the Department of Agriculture and the Canadian Forestry Association of New Brunswick. Under direction of the Extension Forester of the University this program is proceeding along two major lines: first, educational and demonstrational work in general woodlot management or "tree farming"; and second, similar work in relation to the production of Christmas trees with particular attention to practices which will improve natural stands of balsam fir for this purpose. The possibilities of Christmas tree plantations are being studied and a private undertaking to produce nursery stock for this and for general reforestation purposes has been given support. Directed particularly toward the lesser agricultural areas, this program will provide substantial leadership and assistance in developing over-all producing units of economical proportions.

In the development of conventional agricultural activities, increased recognition and encouragement are being given to those lines of production to which local conditions of soil and climate are best adapted and which, therefore, can be grown and marketed at competitive prices. Up-to-date production equipment, materials and techniques are being promoted while due attention is being given to market channels and procedures which will prove satisfactory to large and small farmers alike. In general the agricultural adjustments so far made tend toward majoring in one or two lines of production on the individual farm, but usually with several minor lines also maintained. This pattern permits the necessary expansion of operations with minimum demands upon manpower and upon capital. If it tends to narrow the foundations of the enterprise it also narrows the field in which special skill is required for success. In other words it is likely to continue as the common growth pattern of New Brunswick farm units.

In this difficult transitional period much credit must be given the agricultural stabilization program of the Canada Departments of Agriculture, under the previous as well as the present title, for the steadying support given to the industry. As a result farmers have been enabled to proceed with some

degree of confidence to effect the necessary adjustments in their individual operations. Appreciative of the part it has played thus far the New Brunswick Department of Agriculture is convinced that the program, in some form, should be continued at least until the period of major readjustments is ended. Moreover this Department endorses the principles recently enunciated by the Federal Minister of Agriculture of directing such assistance only to bona fide farmers and of administering it in such a manner as to permit the commodity retail price, when necessary, to adjust to a level which encourages consumption.

Increased activity of the New Brunswick Farm Settlement Board in recent years is, in substantial part, a reflection of action on the part of smaller continuing farmers to expand the scope of their operations. In other words, many purchases have represented the acquisition of an abandoned farm to increase the acreage of an established enterprise. In order to deal with the situation more adequately in terms of present-day values the Board three years ago increased its ceiling price per farm from \$6,000 to \$10,000, or to \$15,000 in the case of a partnership. Thus in line with the times, its assistance has been made available to farmers in securing larger and better-developed independent units or additional acreages.

Frequently mentioned by farmers as a limiting factor has been the lack of sufficient credit with which to finance desired expansion or adjustments. The Farm Improvement Loans Act of the Federal Government has helped considerably with loans of shorter duration. Limited use also has been made of the Canadian Farm Loan Board, but many New Brunswick farmers have found the provisions under which the latter has operated more stringent than they could meet. Particularly was little account taken of the woodlot as a source of possible annual revenue or as a considerable factor in appraising the soundness of the over-all operation. Representations from this Province and others have resulted in the Government of Canada undertaking a further study of the whole farm credit situation. In progress at the present time with early action promised, it is confidently expected that revision of the policy will result in improved applicability to New Brunswick conditions and consequently in more effective assistance to the remaining necessary farm adjustments.

In this presentation an endeavour has been made to deal briefly with the history of small farms in New Brunswick, with the effect of changing conditions upon them and with some of the features and agencies which have played an assisting role in the readjustments which so far have taken place.

The speed and facility with which adjustments have been made since 1941 encourage the belief that a vigorous pursuit of all assisting program features, with such recent or imminent additions and revisions as have already been mentioned, will result in the process being carried steadily forward until the necessary point of balance is reached. However, should one or more features fall short or be unduly delayed in realization then consideration will need to be given to some additional program to help in completing the desirable adjustments. In any case before the matter is considered closed it will be essential to insure that nowhere, simply from lack of physical or financial resources, are straggled populations left in isolated communities where the provision of adequate services is unduly difficult and expensive.

In closing perhaps the lines of action required to stimulate the continued adjustment and development of agriculture in New Brunswick might be summarized as follows:

1. All possible development of industry to absorb persons displaced from farming and to build local consuming population. Expansion of the tourist business is a substantial and closely allied possibility.

2. Special emphasis upon those lines of agricultural production to which soil and climate are particularly adapted or in which the local position is one of deficiency production.

3. Improvement and development of the farm woodlot as a supplementary source of annual revenue particularly in the less-favoured agricultural areas.

4. Fostering, developing and stabilizing as occasion requires and conditions permit, both phases of dual-occupation enterprises such as farming-lumbering, farming-pulpwood cutting and farming-fishing. This is important from the standpoint of maintaining seasonal labour forces on which these allied industries largely depend as well as from the ability of such dual undertakings to yield satisfactory livelihoods for many families.

5. The application of a more realistic farm credit plan to New Brunswick conditions.

6. Due attention to market outlets, quality standards, packaging, processing and marketing procedures.

7. Earliest possible completion of the proposed study of railway freight rates by Royal Commission and adjustment of said rates as necessary to encourage the development of outlying areas of Canada in fair and reasonable relation to the central highly industrialized portion of the country.

Vigorous pursuit of a program along these lines will provide the necessary assistance for the continued improvement and expansion of small farms to the point where they yield adequate modern livelihoods and thus remain, in the future as in the past, an important factor in the social and economic life of New Brunswick.

The CHAIRMAN: Thank you Mr. Gilbert. That is a very fine brief, precise and to the point. If honourable senators have any questions which arise in their minds I am sure Mr. Gilbert will be glad to answer them.

To start off, may I ask about this matter of farm credit? What do you mean when you say there should be a more realistic farm credit.

Mr. GILBERT: We think a more realistic farm credit program for Canada is one that would be flexible enough to take into consideration all the peculiar conditions, and give more credit, for example, to farm woodlots and other farm assets. In other words, under the Canada Farm Loan Board it is pretty difficult for a farmer with a good farm woodlot as part of his farm to get due credit.

Senator TAYLOR (*Westmorland*): Is it not true, Mr. Gilbert, that no consideration is given to the asset of a farm woodlot under the regulations of the Farm Loan Board? They take into consideration only the actual production of the land, even though a man may have a quarter of a million feet of lumber. No consideration is given to the woodlot in appraising the farm.

Senator STAMBAUGH: That is true all across the board.

Mr. GILBERT: That is a very important angle with us. We have about two million to two and a quarter million acres of farm woodlots in our province.

The CHAIRMAN: Now under the control of individual farmers?

Mr. GILBERT: Under the control of individual farmers.

Senator McDONALD (*Kings*): May I ask Mr. Gilbert how did your department deal with the findings of the commission of the department in Nova Scotia in its study of credits? I was wondering particularly about the suggestion they made that loans should be on a federal-provincial basis, the federal putting up perhaps 75 per cent and the provincial 25 per cent, and having the loans managed by the province, since the provincial authorities would be nearer to the farmer and understand conditions better than the federal authorities?

Mr. GILBERT: My interpretation of that report to which you refer, sir—the federal Government as you say, would put up 75 per cent, and the province would put up 25 per cent and would be responsible for the collections and the administration. There were several phases of that that we would not go along 100 per cent with. We are quite happy to co-operate in every way possible so far as farm credit is concerned, but there are certain phases of the report that I do not think we could go along with 100 per cent. I do not think the administration and the collections should be left entirely in the hands of the province.

Senator BARBOUR: Mr. Gilbert, a young farmer who, say, sold his farm in New Brunswick and realized \$1,500 from the sale of it could move into Ontario, or one of the other provinces, and he would be able to finance a house, and the Government would lend him up to \$12,000 on the house and he would only put up about \$1,500. What assistance can a young man on a farm with \$1,500 get from the Farm Loan Board?

Mr. GILBERT: The Farm Loan Board in New Brunswick will put up \$10,000 for an individual. He must pay down \$2,500, or 25 per cent, so that in your case of a man with \$1,500 they would advance him up to \$6,000.

Senator BARBOUR: The balance is not with the farmer, then? It is with the people who move off the farm. He can get more credit if he is not a farmer than if he is a farmer?

Mr. GILBERT: I am only speaking if he wants to buy a farm. Under our New Brunswick Farm Loan Board they must put down 25 per cent as an initial payment.

Senator TAYLOR (*Westmorland*): Is the provision still in the act that if a farmer has, say, a lot of equipment and livestock it will be taken into consideration as part of the down payment?

Mr. GILBERT: No. I think the farm is appraised on its overall value.

Senator TAYLOR (*Westmorland*): In the old days if the land had no equipment or no livestock he necessarily had to put up the 25 per cent, but if he had machinery and if he had livestock—a considerable quantity of livestock—the 25 per cent might be reduced to 10 or 15 per cent. Is that provision still there?

Mr. GILBERT: Yes, under it now the farmer can get, as I said before, \$10,000 singly, or \$15,000 if he is in partnership. In addition he can get up to \$2,500 for livestock and equipment.

Senator McGRAND: I would like to ask a question on this subject of farm credits. If farm credit was increased to what segment of agriculture would these credits be applied? Have you that in mind?

Mr. GILBERT: Well, I would say to any farm or operation that looked like a good investment for the man purchasing it, but I do not think it can be said to be confined to the livestock man or the potato man. It applies to any operation that has some promise of success.

Senator McGRAND: It is just generally applied.

Mr. GILBERT: That is right, sir, and if credit is to be extended there has got to be a little more managerial assistance to go with it to help out the fellow getting the credit.

Senator McGRAND: Why I ask that question is because, as you mentioned a moment ago, farm woodlots have not been taken into consideration in the granting of credit, and I thought you were going to say something on the development of that.

Mr. GILBERT: Would you like me to?

Senator McGRAND: Yes.

Mr. GILBERT: Well, first of all, let me say this, that under our New Brunswick Farm Loan Board in the \$10,000 and \$15,000 potential assistance to which I referred the woodlot is taken into consideration on a provincial basis, but it is not under the Canadian Farm Loan Board. That is what I referred to in my brief.

In answer to your question, sir, we feel that in our province, as I indicated in the brief, this whole farm woodlot question has great potential. We grow trees down in our province, as in the province of Nova Scotia, very readily. All we have to do is to let a piece of land go for a few years and it will grow up with trees. The farm woodlot has been a very, very valuable part of most farms in our province, and if properly managed and cared for it can be an annual revenue producer in just the same way as any other crop. In view of this transition period that is going on we decided jointly with the Extension Forester of the University of New Brunswick and the Department of Lands and Mines and our own department and the Canadian Forestry Association of New Brunswick that it was time we were giving this a little more direction and a little more leadership. We set up a committee of which, incidentally, I am chairman, and we said: "We are going to do it this way". First of all, we get inquiries every year for thousands and thousands of little tree seedlings—the three year old ones. We have a lot of applications from people who want to know how to prune Christmas trees, how to cut their pulp stands, and what they should cut and what they should leave. Then we get inquiries in the Fall from people who are shipping Christmas trees as to how they are going to ship them under grade, or how they are going to ship a reputable product. We have established with a private nurseryman a tree nursery from which we hope to get in the year 1961—it takes three years to produce these little trees—500,000 trees as a start. I understand a million is going to be planted this year for 1962. We have taken on in our department two experienced foresters this year. They are not full-time employees, but they will be with us during the summer and early Fall months when they can work in the woods, and we are giving consideration to the fact—in fact, it is in the process now—of offering our Christmas tree shippers who are interested in shipping by grade a set of grade regulations under which they can ship. Incidentally, gentlemen, the Christmas tree business in our province is quite a big business as far as agriculture goes. You may be surprised if I tell you—and I got this from our extension forester—that Christmas trees, properly pruned commanded a price last year of up to 75 cents and 80 cents each, while poor trees were bringing only 20 cents. It takes only a very short time to prune an acre of Christmas trees. It is like pruning apple trees. You go along and prune off the long branches and make them even.

We think this whole question of farm woodlot management has a great potential, and in so far as the two people we have taken on are concerned they have individual requests right now which are enough, even if nobody else asks for their services, to keep them going this year straight ahead.

Senator HIGGINS: By the way, what is a Christmas tree?

Mr. GILBERT: What is a Christmas tree?

Senator HIGGINS: I know I have had a Christmas tree ever since I was a boy, but when you are talking about Christmas trees what do you mean?

Mr. GILBERT: It is a tree that grows probably seven or eight or nine feet in height. The most popular tree that we grow for Christmas trees, the one that has the biggest demand in the United States, is the balsam fir. They are also going for Scotch pines quite a bit, but the balsam fir remains popular.

Senator STAMBAUGH: Do you say they are seven to eight feet high when they are cut?

Mr. GILBERT: You cut the tree from seven to eight feet but you do not always cut it at the butt. You sometimes go up and then cut. These trees will grow to that height in about seven or eight years in our province.

Senator HIGGINS: In the thirties they started cutting Christmas trees in Newfoundland from three to four feet in height. It practically denuded the whole countryside. They only got about seven or eight cents each for them. There was a bit of an uproar over that. I suppose those trees would have brought in a lot more money had they been allowed to grow.

Mr. GILBERT: Yes, they were cutting them too small.

Senator HIGGINS: These trees would eventually have grown into big trees.

Mr. GILBERT: Oh, yes. If you cannot sell them for Christmas trees they will be valuable as pulpwood later on.

Senator McGRAND: Isn't there something to the fact they are overcutting farm woodlots in New Brunswick?

Mr. GILBERT: Yes, but in every community there is always some person who is a good thinker who has taken care of his farm woodlot for a number of years. Where care has been given and proper cutting practices carried out, a farm woodlot will go on indefinitely producing a crop.

Senator HIGGINS: But there should be a check.

Mr. GILBERT: That is exactly what we are trying to do.

Senator McGRAND: Some policy should be developed with regard to control over the wood-cutting, but these men on the land are trying to make a livelihood and their taxes are high and their farm produce doesn't meet their obligations so they keep on cutting a little more each year from the woodlot until it is completely denuded. Then they are forced off the land. To me that would be the most important thing you could so far as the back settlements in New Brunswick are concerned.

Mr. GILBERT: Under our new farm forestry program, as I call it, we are going to try to hold demonstrations throughout the province. We are lining them up now. We are going to endeavour to get people together in groups, even small groups of half a dozen people, and through an educational program try to show them what a good farm woodlot looks like and how it should be cared for.

We carried out a similar program some 20 years ago with respect to pasture fertilization. I was the agricultural representative in Queens County and to spread the gospel down there I took a three-acre field in one community and put on pasture fertilizer about the last week in April. Along about June 20th got a group of farmers together and I said, "Here is what happens when you put pasture fertilizer on your land, and here's what happens when you don't." Well, a man can easily see the difference, and that is all that needs to be said because pasture fertilization is generally practised in our province now. This was brought about through a program of education.

Senator McGRAND: It only takes one or two years for a farmer to reap the benefit of a program of pasture fertilization, but takes 10 to 15 years before he benefits from the proper care of a farm woodlot, and during all that time he is faced with an awful problem of paying increased taxes.

Mr. GILBERT: That is right.

Senator McGRAND: I don't know just what the increase in taxes has been but I would say on the type of farm we have been talking about the taxes have increased 100 per cent in 15 years.

Mr. GILBERT: And more in some places.

Senator McGRAND: The only place the farmer can get the money to pay the increased taxes is from his woodlot. It is all very well to show him what

will happen in 20 years' time if he takes care of his woodlot, but that doesn't meet his problem at the time he has to pay his taxes. What else can be done?

Mr. GILBERT: You are asking what can we do to force those fellows to make the right move?

Senator McGRAND: Well, you spoke about credits a while ago, and I am trying to tie that up with this farm woodlot problem.

Mr. GILBERT: Well, we have 22,000 farmers in New Brunswick and I don't know how you could force all these people to do exactly the right thing immediately.

Senator McGRAND: It has to be provided for in some way by credits. There should be some extension of credits that will carry the farmer over that period of 15 to 200 years. Do you understand what I am driving at?

Mr. GILBERT: I can see your point.

Senator McGRAND: I am thinking along the lines that the amount of credit or assistance given him could equal his increase in taxes from year to year. In other words, you have to pay him to stay there.

Mr. GILBERT: While this project is new in New Brunswick it is not new in other countries. Norway and Sweden have been practising it for years and years, and the state of New York has a terrific program in operation. So do the states of Maine and Pennsylvania. Goodness knows how many other states have similar programs. We have to creep before we can run.

Senator GOLDING: As I understand it, a Christmas tree will continue to grow after it has been cut?

Mr. GILBERT: If it is properly cut, and a leader left to grow.

Senator GOLDING: And you try to get that idea into the thinking of these people on the woodlots?

Mr. GILBERT: That's right. We are going to hold perhaps a dozen demonstrations and take the people right into the farm woodlots where some farmers have been carrying this on for perhaps 20 or even 30 years, and we will show them what can be done under proper management. Then we will give them whatever instruction is necessary. It is not a complicated thing. It is a matter of showing good judgment.

Senator McGRAND: I believe you were at the demonstration at Hoyt?

Mr. GILBERT: Yes.

Senator McGRAND: What success has emerged from that? Did any enthusiasm develop from it?

Mr. GILBERT: I can tell you what happened to that program. Prior to the war there were certain demonstrational woodlots marked out and some thinning and pruning was done, but the war came along and the program was just dropped during that period. It was a case of scratching the surface.

Senator TAYLOR (*Westmorland*): I would like to comment on a statement made by Senator McGrand. I don't think there is any legislative authority or policy that would be acceptable as far as woodlots are concerned. I think it is more of a matter of education. Woodlots have been handled exceedingly well in many areas. I think that farmers would readily adapt themselves if they were educated on how to properly look after their woodlot, but I do not think anything compulsory could be done.

Senator McGRAND: I was not suggesting that any compulsory measures be taken, but I thought some regulations could be tied in with the credits given.

Senator TAYLOR (*Westmorland*): Well, it would have to be tied in with the whole farming program. The woodlot is an important factor in the overall

farming operation and any financial assistance that is given would have to be given on the basis of the whole farm itself.

Senator GOLDING: We have been discussing the problem of the small farm. What is the average size of farm in New Brunswick?

Mr. GILBERT: The average size of the improved acreage of land you have in mind is 43 acres for the province. The average sized farm is 151 or 152 acres; that takes in wasteland, lumber land, improved and unimproved land. But improved land is 43 acres.

Senator GOLDING: But they are laid out in 150 acres?

Mr. GILBERT: 100 acres when the old grants were given. I mentioned in my brief probably 100 acres, but that picture has changed in certain areas.

Senator GOLDING: Would that 43 acres be for general farming?

Mr. GILBERT: In certain areas, yes, general farming, but in certain areas specialized farming. For example, in the potato area, I pointed out that in one county the average size farm in Carleton County, which is in our potato belt, is 89 acres of improved land. In the general overall area it is 42 acres; but in our big dairy units, of course, the average is away beyond that. I gave you the figure for the overall average of the improved land.

Senator GOLDING: Would they be able to make a reasonably good living from that?

Mr. GILBERT: Not on 43 acres, no, not with general farming. As Mr. Steacy, the Minister of Agriculture for British Columbia said last night, and I repeat, you can live today, if you are a poultryman, a hog grower, or a small fruit and vegetable man, on less than 43 acres, but you cannot in general farming.

Senator BARBOUR: If I said to you that I have 30 or 40 acres of good land, could you recommend what livestock, what cattle, I should have on the farm?

Mr. GILBERT: The thing is this: First to all, you have to have a good pasture in our country if you are going to run one mature animal per acre. You have to figure for a mature animal around three tons of hay per mature animal. Then you have to take into consideration your soil. If you have poor soil you have to have more of it, and if you have good soil you can get along with less. That is answering your question in a roundabout way. But I don't think it is possible to say how many cattle you should run on a farm of 43 acres, because it varies terrificly. Down in that marshland of ours you can run twice as many cattle on the area as on certain other areas in the province.

Senator STAMBAUGH: You mentioned, I believe, that after you cut a Christmas tree, that same tree would keep right on growing.

Mr. GILBERT: Well, if it is pruned properly, and if you take out a young tree it simply shoots up another leader; in this way you gain a few years.

Senator STAMBAUGH: Is that true of only the balsam fir, or does that also apply to spruce?

Mr. GILBERT: Well, you would have to ask the people who sell them. Spruce is not too good a Christmas tree; we don't ship many spruce, as far as I know.

Senator HIGGINS: Why is the spruce tree not a good Christmas tree?

Mr. GILBERT: Balsam firs are the most popular. Scotch pine are also in some prominence. But the spruce has never been a popular Christmas tree.

Senator INMAN: Spruce is poison.

Mr. GILBERT: And it dries very quickly.

Senator HIGGINS: We always use a spruce for a Christmas tree.

Mr. GILBERT: But you do not keep it in your house too long, you put it out pretty soon after Christmas, do you not?

Senator HIGGINS: Perhaps so. I suppose you cannot ship it because the needles and cones fall off?

Mr. GILBERT: That is possibly it.

Senator TAYLOR (*Westmorland*): Spruce leaves an objectionable odour in the room. If it is a red or black spruce it is all right, but if it is a light spruce, you would know what I mean.

Senator GOLDING: I take it that if a man had 45 acres, he would have to do some other work to make a living?

Mr. GILBERT: Yes. A man with a 40 acre farm, providing he is not a poultryman, a pig man, or a small fruit and vegetable man, would have to depend on outside income for additional revenue, maybe from the woods, maybe from fishing, or pulp cutting, or maybe from other industry. There is nothing wrong with that economy. If we can get enough extra industry in our province, as I said in the brief, there is nothing wrong with a man driving 10 miles to his work, and keeping a few head of cattle, but he must get supplementary income from outside in order to live. I think that is a pretty sound economy. But the thing is that we need more industry in New Brunswick and we are trying to get it; there is no question about that.

The CHAIRMAN: You have ample power now?

Mr. GILBERT: We have surplus power at the present time.

Mr. STUTT: What are you doing to encourage and develop industries in New Brunswick? You mentioned power. What kind of a program have you?

Mr. GILBERT: We have an industrial and development board in the Government, and they are continually making contacts; they are trying to get small industry or heavy industry, whichever is available, and are making some progress. There has been or is to be appointed a committee whose job it will be to concentrate on that question of attracting industry to our province.

Mr. STUTT: It is mainly a promotional effort?

Mr. GILBERT: Promotional.

Mr. STUTT: But not financial?

Mr. GILBERT: Oh, financial assistance is extended, and is available, under the Industrial and Development Board.

The CHAIRMAN: How rapid is the transition taking place from the small farm to the larger farm, and how long do you think it will take to bring about?

Mr. GILBERT: Between 1941 and 1956, as I pointed out, senator, we lost about 9,000 farms; that is to say, 9,000 farms went out of existence. I cannot see anything in the future that is going to change that trend, and I think it is going to go on, not only in New Brunswick, but all across the continent. I read recently in a United States publication where the trend was going even faster in that country than in our own country. I consider that trend will continue for some years to come in direct relationship to the rate at which we can attract industry, because when you bring an industry in you automatically pull off these small farms people who would go into industry and perhaps live on the small farm, but they do become workers and consumers of food products rather than producers.

Senator McGRAND: Have you any statistics of the amount of land taken over, when two small farms have become one? I am speaking of this question which has arisen about over taxation, and the difficulty of making a livelihood, and the farmer has sold the remaining lumber, has disappeared, the buildings have practically fallen down, and whole communities have become simply

abandoned in that way. Have you any figures that would give us just how widespread that situation is, and how many farms have gone that way?

Mr. GILBERT: If you look at the census figures of 1911 you will find that New Brunswick had at that time about 1,444,000 acres of what they termed at that time improved farm land. The last census, which was taken in 1956, showed one million acres of improved farm land in New Brunswick. We have 3,400,000 acres of farm land of which one million is improved farm land as compared to 1,444,000 acres in 1911, which was the peak of improved farm land acreage.

Now, this may be of interest to the committee, Mr. Chairman: While we have gone back in the number of acres of improved farm land we have increased our production of agricultural crops in New Brunswick, and when you take the production of the five year period 1935 to 1939, the five years immediately preceding the last war, as a base of 100, you will find that in spite of this improved farm land going back into forestry and the like we have increased our production to a figure of 123 per cent, compared with that five-year average in the base period. In 1955, the production was 125 per cent, in 1956, 127 per cent. We are producing from 25 per cent to 35 per cent more food on a million acres, as compared to the basic period.

Senator McGRAND: What is being produced on those 444,000 acres that have gone back?

Mr. GILBERT: There is nothing in the way of agricultural production coming off the farms that have been abandoned and not taken up, but what is happening over the whole picture is that farmers are using modern fertilizer, modern feeds and methods of feeding cattle, in fact we are simply producing more on less acres right across the North American continent, and New Brunswick is sharing in that.

Senator INMAN: The point of it all is that the farmers are using more improved methods, is it not?

Mr. GILBERT: That is right, Senator Inman.

Senator McDONALD (*Kings*): It is the machinery that has helped to increase production to a large degree?

Mr. GILBERT: Yes.

Senator GOLDING: But could you tell us what is growing on those 444,000 acres which at one time were improved farm land?

Mr. GILBERT: It is going back into woods and timber.

Senator TAYLOR (*Westmorland*): These lands never should have been cleared in the first place.

Senator GOLDING: That might turn out to be a good thing?

Mr. GILBERT: There is no question about it.

Senator TAYLOR (*Westmorland*): Farm production in rising from a base of 100 to a figure of 135 means that the production of food has increased 35 per cent?

Mr. GILBERT: The physical volume of agricultural production, on a base of 100 for the five years between 1935 and 1939, has increased 23 per cent in the province of New Brunswick in the last 20 years.

Senator BARBOUR: Have you the figures for the increased production in Prince Edward Island?

Mr. GILBERT: Prince Edward Island is up to 140. You have been up as high as 156.

Senator INMAN: That is a 40 per cent increase in production over the base period 1935 to 1939?

Mr. GILBERT: Yes, that is right.

Senator McGRAND: With increased production being made on a smaller number of acres, could you tell us what that increase has been mostly in? Was it in potatoes?

Mr. GILBERT: It takes in all physical volume of agricultural production.

Senator STAMBAUGH: Is that figure in dollars?

Mr. GILBERT: No, that is in volume of production. You cannot give it in prices because when prices are down production would be down and when prices are up production would be up.

Senator McGRAND: About two years ago we had someone before this committee who told us that New Brunswick was not feeding its own population, was not producing its requirements in a lot of things, such as beef. In the days when we had less production, were we not importing less food than we are now?

Mr. GILBERT: Well, we had less people to feed then.

Senator McGRAND: The increase in population would not account for increased production on a less number of acres.

Mr. GILBERT: The thing is we are not producing our requirements in beef and pork, there is no question about that.

The CHAIRMAN: In the total economy, how much are you short?

Mr. GILBERT: That is a hard question to answer. We are producing surpluses in some articles—in potatoes we have a surplus, we are up in apples, we are over in blueberries, but we are not producing enough beef, pork or poultry.

Senator McGRAND: And eggs, too?

Mr. GILBERT: That is right.

Senator McDONALD (*Kings*): Is beef production being increased in the Tantara marsh area?

Mr. GILBERT: Beef production in the Tantara marsh area is coming along satisfactorily. We have established one community pasture there that is full to overflowing now. We have more applications than we can handle. The farmers established that pasture with our assistance. They appoint a committee which is responsible for the operation and we assist in the inside work, fencing, corrals, drainage and so on. That is in the Shepody area. But in Tantara marsh area where a big dam is going in now, there is a very definite increase in beef cattle. One man alone, and I think he is the biggest feeder in our province, and perhaps in the Maritime provinces, last year pastured close to 400 head.

In Carleton county, where we have a surplus of potatoes, and where potatoes and grain are the two main crops, the increase in cattle between 1951 and 1956 amounted to 50 per cent in those five years, with which we are very pleased, as we want more diversification in that area.

The CHAIRMAN: Is there any particular area in New Brunswick where there is a block of uneconomic small farms?

Mr. GILBERT: Yes, we have certain areas where we have a concentration of small uneconomic farms.

The CHAIRMAN: Is anything being done in those areas to try to rectify that situation?

Mr. GILBERT: We have those areas, but as I pointed out in the brief, most people, or a great percentage of them, depend on outside revenue, from forestry or fishing, etc.

The CHAIRMAN: In other words, they are part-time farmers?

Mr. GILBERT: That is right. They live on the farms but they earn about 75 per cent or more of their money in some occupation other than farming.

Senator McDONALD (*Kings*): Then there is no problem there, is there?

Mr. GILBERT: Not as long as we have sufficient industry to take up the slack in that area.

Senator McDONALD (*Kings*): But what the Chairman was directing his inquiry to was to find out if you have a block of small farms, uneconomic units, where they do not have outside work to increase their income so as to provide them with a decent standard of living.

Mr. GILBERT: We have, as you have in Nova Scotia, a block of uneconomic farm units, no question about that.

Senator McDONALD (*Kings*): What can be done about that?

Mr. GILBERT: As I pointed out before, when you have a community of 50 or 60 farmers in a place like that, there is only one thing they can do, they will either get the farm work or they move out.

Senator TAYLOR (*Westmorland*): The problem is solving itself by evolution. They are being forced to move out if they cannot get work nearby.

The CHAIRMAN: Would an educational program help things in that regard?

Mr. GILBERT: The best education required to put these people on a decent standard of living is to provide work in their community or elsewhere, and then they will accept it. We had an experience in our province trying to force people out of a community a few years ago and it was not pleasant. The thing to do is to create a desirable atmosphere, and the people will go to work of their own accord.

Senator BARBOUR: You encourage them?

Mr. GILBERT: Certainly we encourage them.

Senator McGRAND: The northern part of Charlotte County is largely depopulated now.

Mr. GILBERT: That is correct.

Senator McGRAND: Charlotte County has about the same population.

Mr. GILBERT: Right.

Senator McGRAND: Where have the people moved? Have they gone into fishing?

Mr. GILBERT: I would say they have gone into fishing, and they have gone where there is industry. That is why Moncton, Saint John and Fredericton have grown by leaps and bounds. People ask, where have the population gone? It is obvious that they are going to the cities, not only in New Brunswick, but in other parts of Canada where there are jobs and payrolls.

Senator SMITH (*Kamloops*): Mr. Gilbert, I take it from your remarks that the feeding of cattle, hogs and poultry has increased, that there has been an upturn during recent years in many parts of the country. Does that branch of farming promise to expand to the point where it will solve to some extent the problem in your province?

Mr. GILBERT: As far as our province is concerned we anticipate the cattle population will expand in those areas where we have surplus feed, in the natural cattle country. For instance, in the marshland areas we have perhaps 40,000 acres, and in the upper Saint John valley area, which is a grain and potato producing area, we expect the cattle population to grow. In other areas where there are small units I do not anticipate any increase in the cattle population, because I don't think it is economically sound.

Senator SMITH (*Kamloops*): Is the subsidy on feed playing a part in this increase? Is it a matter of continuing the subsidy on western feed?

Mr. GILBERT: We have to depend on western feed for our livestock and poultry, no question about that.

Senator STAMBAUGH: What happened as a very temporary expedient to start with has become a national policy.

Mr. GILBERT: You people in the west have a surplus of feed and we in the east are deficient; we always will have, because the climate is against us and is not conducive to large grain growing.

Senator McDONALD (*Kings*): You do not have the acreage for growing the feed.

Mr. GILBERT: No.

Senator McDONALD (*Kings*): Having travelled back and forth over the C.N.R. line, particularly from Newcastle to Moncton, I am struck by the number of small farms, which do not seem to be growing very much. I suppose these people get their livelihood from the woods.

Mr. GILBERT: From the woods, railway, pulp, lumber, fishing and so on.

Senator TAYLOR (*Westmorland*): Unfortunately, the senator picked about the worst section of our province.

Mr. GILBERT: Yes, I am sure that is so as far as small holdings are concerned.

Senator McDONALD (*Kings*): The reason I happened to think of it is because I travelled the route so often.

Senator BARBOUR: Would you say your government is doing about everything possible to assist the small farmer to encourage him to get into industry where possible?

Mr. GILBERT: I would say the government is encouraging industry to come to our province as much as can be done. As I said before, there are two or three agencies working very hard on it and are achieving some success. As far as we are concerned departmentally, we have all kinds of programmes to assist these people and make them more self-sufficient.

Senator BARBOUR: And you are meeting with some success?

Mr. GILBERT: Yes, senator, I would say most certainly we are. But I make this reservation, that there are certain areas which in my opinion are going to go out of agriculture because it is not sound business for them.

Senator McGRAND: What do they go into?

Mr. GILBERT: They will go to industry, and if we can't provide it, they will go somewhere else.

Senator TAYLOR: I think there is another aspect that has not been mentioned. True there is mechanism and better farming methods, but we fail to mention the progress that has been made in breeding programs to assist the livestock industry. Would you care to comment on that?

Mr. GILBERT: Mr. Chairman and honourable senators, I would be happy to do that. We undertook 10 or 12 years ago a livestock improvement program in our province, particularly with respect to artificial breeding. Last year we bred in the province of New Brunswick 23,000 head of cattle, and in the province of Prince Edward Island, which we also service, about 18,000 head. We have assembled a headquarters of the unit in Fredericton, with about 45 herd sires from the best blood lines obtainable in this country.

Senator STAMBAUGH: What breeds?

Mr. GILBERT: Three beef and five dairy breeds. We have a central committee consisting of representatives from both the provinces of Prince Edward Island and New Brunswick, and the plan is working out very well. They get together and select what blood lines they want, what animals they wish to

buy. I anticipate that if the program continues we might this year reach 50,000 to 60,000 head. It is one of the most successful artificial breeding programmes in the country.

Senator STAMBAUGH: Do you consider Shorthorns a beef or dairy breed?

Mr. GILBERT: There are two types of Shorthorns: the Scottish Shorthorn is strictly beef, the dual purpose is dairy. In the old country they call it the dairy short horn. It depends on what type you are speaking of.

Senator STAMBAUGH: Do you have both?

Mr. GILBERT: We have both; we have both types of bulls.

Senator McDONALD (*Kings*): Could I ask Mr. Gilbert if he would agree that perhaps one of the best things we can do looking to the future in keeping down the number of uneconomic units is to promote agriculture education every way possible through group work, short courses, and perhaps most important of all to get the best boys who are going to farm to attend agriculture school.

Mr. GILBERT: There is no question but that we should not underestimate the value of education in agriculture or in anything else. We have, as you have in every other province, 4-H clubs, we have vocational agriculture courses which are attended by anywhere from 100 to 200 students each year. We have a good program going on in the province for rural youth.

Senator WALL: Of course, Mr. Gilbert, you would also agree, as I think the senator would, that an educational program per se, if not tied to economic incentives or possibility of use for the kind of living that people anticipate will be the product of their endeavour after their education completed, is not always effective. There is that additional problem to be faced.

Mr. GILBERT: Yes, there is definitely an additional problem.

Senator McDONALD (*Kings*): What about farm management? Are you able to secure properly trained young men in farm management or train them through your extension work in farm management.

Mr. GILBERT: The matter of farm management, that of going out to tell you how to manage your farm or somebody else's farm is a question. We have a staff of agriculture representatives who in most cases are capable of giving good service in this respect. We are encouraging a close liaison between the branch heads and the men in the field. Only this week-end we are sending four men down through the United States and up to the province of Ontario to look over the latest developments on poultry and hog establishments. They will take a week or 10 days.

Senator McDONALD (*Kings*): Are the colleges turning out sufficient numbers of men for extension of farm management training?

Mr. GILBERT: This has come up for discussion many times in our province, and I think what I have to say applies to your province too. We are getting sufficient men to look after our extension departments and staff requirements. The answer so far as New Brunswick is concerned is "Yes". I am not saying that is true all across the country.

Senator MACDONALD (*Queens*): May I ask Mr. Gilbert what is his opinion as to permanent pastures.

Mr. GILBERT: The work of permanent pastures was one of the first jobs I worked on in 1936. I realize of course there are men in this room who perhaps have been more closely associated with this problem than I have in a practical way. I have seen pastures that have been down for that period of time, and are still good. In the Old Country they tell me there are pastures which have been down for 50 years, and they are still good pastures.

Senator MACDONALD (*Queens*): They are fertilized every spring.

Mr. GILBERT: Yes, they use fertilizers, that is right.

Senator TAYLOR (*Westmorland*): Before this meeting breaks up I would like to move a vote of thanks from this committee to Mr. Gilbert for the very fine brief he has presented, and for his answers to the questions that have been thrown at him. I hope you will not think I am boasting when I say that I trained Mr. Gilbert for about 17 years, and, of course, that will never rub off. I am sure this committee has enjoyed this meeting immensely, and I would like to move a vote of thanks.

The CHAIRMAN: Honourable senators, before you leave I just want to say that there will be no meeting next week of the Land Use Committee. The next meeting will be on June 11th, when Manitoba presents a brief.

Whereupon the committee adjourned.

APPENDIX "C"

A brief dealing with the Problems of
THE SMALL FARM UNIT in British Columbia
Presented by the Honourable Newton P. Steacy,
Minister of Agriculture, British Columbia

Senator Pearson and other Honourable Senators it is a pleasure and a privilege to accept your invitation to present, on behalf of the Government of British Columbia, a brief dealing with the small farm in that Province.

A copy of the brief has been made available for each member of the Committee.

Certain pertinent statistical data appear as appendices. Considerable use is made of material prepared by my Department for the "Inventory of British Columbia Agriculture" presented at the B.C. Natural Resources Conference in 1956. Necessary changes have been made where facts and conditions in 1959 require.

Material extracted from studies made by the Economics Division of the Canada Department of Agriculture is shown in the appendices under explanatory headings. This includes some of the data prepared for the Royal Commission On the Tree-Fruit Industry of British Columbia which reported last fall.

British Columbia is a province whose rugged terrain is obvious to all who have visited Canada's Pacific Coast. Much of its vast area is in mountains, lakes and rivers. Agricultural and potentially agricultural land is found largely along the rivers and streams flowing through its many valleys, in river deltas or on high plateaux. The extensive Peace River area is comparable to the adjoining section of Northern Alberta. Developed agricultural land is but a very small percentage of the total land area as shown in Appendix B.

British Columbia's farming potential and production is influenced by topography, soil and climate to an extent perhaps not equalled elsewhere in Canada.

While the total area of the Province is estimated at 234,115,331 acres, fresh water, mountains and forests reduce the land suitable for agriculture to a very small fraction (see Appendix B).

Of the total farm area, estimated at 4,702,274 acres, 24% or 1,147,775 acres is classified as improved acreage calculated to be .5% of the land area in British Columbia. The land actually in crop approaches a figure of 1,000,000 acres, representing 0.43% of the land area of this province.

Improved acreage has increased at an average rate of 25,000 acres per year during the period 1941 to 1951. On an estimated provincial population of 1,567,000 as of March, 1959, we have .63 acres per person in British Columbia. Certain authorities estimate that it requires $2\frac{1}{2}$ acres to support each person on a full and satisfactory diet. This offers a partial explanation of the agricultural import-export relationship in British Columbia. It also suggests the need for encouraging further reclamation and maximum production per unit in order to obtain the most from what we have—where that is economically sound.

Irrigation of crop lands plays an important part in attempting to achieve maximum production per unit. The Water Rights Branch of the British Columbia Department of Lands has estimated 214,000 acres of irrigated land in the province of which 25% is under the control of public and private organizations (district projects) while the remaining 75% is irrigated by

individual effort, mostly for hay and grain on stock ranches and for field crops.

About 210,000 acres are protected by dykes in the Lower Mainland requiring 340 miles of dykes and 90 pumps.

The greater portion of those reclaimed lands is organized into 45 districts and areas of which 20 are administered by municipalities, 11 by the Dyking Commissioner and 14 by elected authorities.

Other dyking and drainage projects located at Creston and Pemberton bring the total to approximately 250,000 acres or 20% of the total improved acreage in British Columbia.

It is estimated that British Columbia possesses 4,615,000 acres of potentially arable land. However, much of this potential acreage will require, in most instances, large scale reclamation projects and considerable government assistance before being brought into a state of production. Appendix D indicates the distribution of this potential acreage, the total of which is the equivalent of 2% of the provincial land area. Of this potential acreage 400,000 acres are estimated to be irrigable.

A comparison of the distribution of farm population in the regions of the province and the relationship of farm population to total population provide interesting information. (Appendix E)

Although 39% of the total farm population live in Region 4 (Fraser Valley or Lower Mainland), they represent only 7% of the total population in that region. In striking contrast to this situation is the population relationship in Region 3 (Okanagan) where the farm population constitutes 34% of the regional population. A somewhat similar position is obtained in the Peace River Region where 39% live on farms.

Farm population remained static during the thirties, then increased by some 18,000 in the decade 1941-51 to a total of 120,292. During the same period, however, the total population of the Province increased by 347,349 so that the farm population registered a relative decline from 12.5 to 10.3 percent of the whole.

In the ensuing five-year period, 1951-56, the farm population declined by nearly 8,000, further reducing the relative percentage to only 8 percent of the total for the Province. Specific data on population and number of farms is given in Appendix E.

Two regions together account for over 60% of the provincial total number of farms, Lower Fraser Valley (Region 4) with 38% and Okanagan (Region 3) with 24%. Appendix E shows that the next two regions in order of number of farms, are Vancouver Island (Region 5) and West Kootenay (Region 2) with 10% and 8% respectively. The Peace River follows with 6% of the provincial total.

It must be realized that although the Peace River and Central British Columbia Regions possess the greatest potential arable acreage, it requires in these regions more acres to form an economic farm unit than it does in some others such as the Fraser Valley or the Okanagan.

In British Columbia capital invested by farmers in land, buildings, implements, machinery, and livestock, is approximately one-half billion dollars. Individual initiative has been responsible mainly for building this capital investment. The last census reports approximately 85% of the farm operators hold title to their lands with 75% of all farms free from mortgages or agreements for sale.

With few exceptions, British Columbia produces all farm crops grown elsewhere in Canada. Moreover, British Columbia produces several which cannot be grown in other parts. Commercial production of field daffodils, English holly and certain medicinal crops such as cascara and digitalis is restricted to areas of British Columbia, mainly Vancouver Island.

Dairy production is concentrated in Regions 3, 4 and 5, the North Okanagan, Lower Fraser Valley and Vancouver Island; fruits and vegetables in Regions 3 and 4, the Okanagan and Fraser Valley; beef cattle in Regions 1, 6 and 7, with the major share in Regions 6 and 7; and cereal crops in the Peace River, Region 10.

I wish to draw attention to Appendix F which shows a breakdown of our cash farm production in 1957—the latest year for which figures are available. These may be of assistance in following my submission. Farm cash income for 1958 is estimated by D.B.S. at \$121,227,000.00.

British Columbia is in the main a deficiency area in the production of agricultural commodities. It is necessary annually to import 70% of our beef requirements, 90% of pork and pork products, 50% lamb and mutton, 85% butter, 95% cheese. In addition substantial amounts of eggs, poultry and turkey meats, fruit and vegetables as well as of powdered milk are also imported.

Our present production of certain commodities, including eggs, broilers and a few vegetables, is just about sufficient for our needs. We could raise all the maincrop potatoes we require and all the winter carrots, etc. but in all of those commodities the influence of imports, to which I shall refer later, restricts production.

We export a large percentage of our apples to the Prairies, to Great Britain and to many of the States to the south but at prices which have, in recent years, been far from remunerative. Not only do we have keen competition for markets in Canada which were traditionally regarded as ours but American imports seriously reduce the volume our growers sell in British Columbia.

It might appear at a casual glance that the deficiencies referred to provided admirable opportunities for substantially increased production of those commodities in short supply and which British Columbia can grow. The facts however show that increased production is not as easy or attractive as it may appear.

The settlement of land and the development of farms in most of British Columbia has been slow tedious and expensive. Many of our best and most productive farms were reclaimed from land carrying heavy forest growth. Farming followed logging. Clearing and drainage was a heavy, back breaking job, costly and slow. Increased acreages of arable land were possible only as money for the various operations was earned elsewhere in mining, fishing, logging, in railroad construction and the varied sources of employment available in the development of a new country. Irrigation of arid lands and dyking of flooded areas were expensive operations.

Technological advances have provided modern equipment for land clearing, ditching, earth moving, building dams and dykes, etc. but costs remain high. Removal of brush, stumps, etc., burning windrows, picking roots, breaking the land and other tillages necessary before cropping are all expensive and can vary from \$40.00 per acre to \$400 per acre, depending on cover and other conditions.

Construction of storage dams for large irrigation projects and of the canals, flumes, etc. necessary for water distribution is very costly. Maintenance and replacement expenses are high.

Dyking and drainage projects are equally expensive to construct, maintain and rehabilitate.

Moreover agricultural development in British Columbia as elsewhere can be successful only if steady markets are available where the commodities produced can be sold at a reasonable profit. There is keen competition for those markets particularly in the Greater Vancouver area. This situation has been aggravated by the development in recent years of large and small scale

agricultural reclamation projects in the Province of Alberta and in the North Western States, particularly Washington.

The Columbia Basin project located in the southeastern portion of Washington State has a total of 2,500,000 acres of which about one half are suitable for irrigation. Climatic conditions are comparable to those in the interior of British Columbia and consequently crop production is similar.

Cheap electric power from the Federally financed and constructed Grand Coulee power plant is available for pumping irrigation water. Roosevelt Lake created by the dam provides a source of water. Reclamation of the land, construction of irrigation canals and facilities have also been carried out by the United States Government and acreages sold to settlers on terms that make it possible to establish without the heavy annual costs which have hampered and in some cases bankrupted irrigation enterprises in British Columbia. The Columbia Basin land is sold on a long term basis with low initial rates. Irrigation charges are deferred for a ten year period which permits the farmer to equip his farm and become firmly established. Thereafter, repayment of a share of the construction costs of irrigation facilities is made over a long period, free of interest.

This is a large development, close to the urban centres of British Columbia and a strong competitor for agricultural produce markets there.

This is only one example of agricultural development by reclamation in the western States through Federal assistance. A number of similar projects, large and small, have been completed or are in course of planning or development.

It is evident the Government of the United States recognizes the heavy costs often met in reclaiming land for agriculture and have taken steps to ensure a reasonable possibility of success for such enterprises.

The St. Mary's River project in Southern Alberta is, I assume, well known to the Committee as a major enterprise where the costs of the basic development were met by Ottawa under P.F.R.A. The Province of Alberta assumed certain obligations to make it a joint project. I believe much of the land to be irrigated has been sold on a long term basis with relatively low annual charges for water.

Many of the crops produced in that project and in the Vauxhall project in Alberta, particularly potatoes and vegetables are competing strongly in British Columbia with locally grown crops, mainly possible because of the advantageous financing enjoyed by the farmers involved and the initial lower cost of land and water.

It is apparent if British Columbia growers are to compete successfully, even in our own province, with produce from projects such as those mentioned, some form of Federal assistance must be provided in the development of new land and in the rehabilitation of existing reclamation systems. Joint Federal and Provincial assistance in the planning and financing of projects in British Columbia appears highly desirable. Much could be accomplished to place present and future agriculture enterprises in the Province on a solid footing by the use of long term financing with low interest rates.

The topography of the Province has, as the map shows, areas of agricultural production and potential widely separated from one another and many of them situated at long distances from the major group of consumers in the Greater Vancouver area.

Heavy freight costs reduce net returns to farmers—in fact too often interior producers cannot meet competition from outside the Province. For example, the freight charge for moving a ton of potatoes by rail carlot to Vancouver from Wyndell near Creston is \$15.40; from Grand Forks \$12.00; from Vernon \$9.40. The rate from Lethbridge is \$18.00 by rail and \$16.00 by

truck. From Columbia River Basin points such as Moses Lake in the State of Washington and from Yakima the average rate is \$9.00 per ton.

Interior irrigated areas formerly sold surplus alfalfa to Fraser Valley and Vancouver Island farmers. That market has been lost almost in its entirety to the production of the Columbia River Basin in the United States, laid down in the haymows of Valley farmers for as low as \$22.00 per ton. Our Interior farmers feel that at \$17.00 per ton on cars they barely receive cost of production.

Freight rates have also seriously reduced net returns for apples—one of our major exports and have practically eliminated the British Columbia product from markets east of Regina.

Conversely, geographical location and freight rates increase the cost of equipment, fertilizer, etc. that farmers require in their operations.

In the past fifteen or even twenty-five years there has not been too much change in the number of farms in my Province—estimated now at 24,748. There has been, however, a significant shift in the relationship between farm and non-farm population. In 1931 farm population was 14.7% of the Provincial total; in 1956 it was only 8.0%, the non-farm population having increased by 693,900 or more than double.

That population increase caused the demand for non-farm products to completely outstrip that for farm products. Accompanied by, or perhaps as a result of, tremendous industrial development, it caused severe labour competition, with agriculture unable to bid high enough for the supply available. This forced the B.C. farmer to mechanize. The number of farm tractors increased in 25 years from 1,402 to 15,282; farm trucks from 3,947 to 11,758; grain combines from 20 to 1,060 and there were 20,279 farms with electric power and light as against 6,407. In the meantime horses dropped by 30,000 to just under 27,000.

As a result of this trend capital investment in British Columbia farms has doubled since 1931. Investment per farm worker rose from \$4,600 to \$12,000. Assets per farm worker increased 300% against 75% for a non-farm worker. Very definitely the farmer has made a serious effort to adjust his production methods to meet present day conditions.

In examining the over-all picture we must remember that what is described as a farm is not necessarily comparable to an economic business enterprise as found in other sectors of production or distribution. In 1956 we find 33.5% of British Columbia farms or 8,276 to be 3-9 acres, 10-49 or under and 64.4% or 15,926 to be 50 acres or less.

Fifty-five percent of British Columbia's farms produce less than \$1,200 per year. In other words their primary purpose is a home and some part of the family living. For all of Canada the figure is 38%. These 55% of British Columbia's farms produce only 8% of the total farm product so that 45% of our farms contribute 92% of our agricultural income. In 1956 the small scale farms produced \$653 and the full scale farms \$8,915 per farm. For all of Canada the relative figures were \$870 and \$7,399.

These figures are given to indicate that certain conditions which pertain in British Columbia to a greater extent than elsewhere in Canada make it more difficult to stabilize agricultural production and marketing here.

Climate and proximity to industrial employment are responsible largely for this situation.

Many people from other parts of Canada and elsewhere, find the climate in parts of British Columbia externally attractive. This is perhaps particularly true of Vancouver Island, the Fraser Valley, the Okanagan-Shuswap-Kamloops and the West Kootenay areas.

Small holdings are acquired by retired, semi-retired and other persons who to a greater or lesser extent attempt—and quite often successfully—to grow and sell certain crops.

A constantly increasing number of the people employed industrially and in the professions in the urban centres of those areas and in other districts, are moving to homes on small acreages outside of those centres. This is understandable and we may expect the trend to continue.

Great care must be taken in examining the position of the small farm in our provincial economy to ensure an objective appraisal entirely divorced from sentiment. A very substantial number of our so-called small farmers or part-time farmers whose cash income, or most of it, is derived from off-farm employment, acquired their holdings not as intended total or major sources of income but as homes in a rural setting in which to live and raise their families. They had at the time of purchase either full-time or very close to full-time jobs of a non-farm nature which they had no intention of relinquishing.

Some hoped to develop holdings to contribute substantially to income or at least to family living; some were planned as additional insurance for retirement: others were intended for development as full-time farming projects ultimately—often of a specialized nature.

By and large, however, the farm income of these people—and in British Columbia they are much more than a few—merely supplements wages or salaries from full-time or mainly full-time employment off the farm holding resided on, or from the operation of a business or profession.

While the landholders just referred to may not be within the scope of this inquiry they cannot be dismissed peremptorily from any discussion of agriculture in my Province. Though in many cases the amount of produce they have for sale individually, after family requirements are met, may not be great, in the aggregate their production of certain commodities can be of sufficiently large proportions to embarrass full-time farmers and exert an adverse influence on the prices the latter receive. Too frequently operators in the group referred to are unable, unwilling or lack the know-how to provide the efficient management necessary to the production of a quality commodity that can command keen consumer acceptance and repeat orders. They pose more than one problem where the sale of commodities grown surplus to family needs are subject to control under a Marketing Scheme.

They do not belong to, nor should they be confused with, those farmers who acquired land intending to be full-time operators obtaining an adequate income from their farm holdings but who, for one or more of a number of reasons, were forced to seek off-the-farm employment in whole or in part, in order to make a living: or whose farm operations while still requiring full-time services, do not provide net incomes that will ensure adequate standards of living for themselves or for their families—again for one or more reasons.

Mr. Chairman if I interpreted your letter of invitation correctly, those are the farmers to whose future you and your colleagues are directing your attention and that is the group in the improvement of whose position I am particularly concerned.

My brief therefore, following those introductory remarks to provide the Provincial background, has been prepared on the basis of that interpretation and will outline as accurately as possible my assessment of the extent to which that group persists in our farm economy, some of the reasons for its presence and certain thoughts on how an undesirable and unfortunate situation may be, if not corrected in its entirety, at least improved substantially.

I have already indicated some factors and conditions which directly and indirectly contribute to the inability of the group under discussion to earn a fair income from farm operations. In the report of the Royal Commission on the Tree-Fruit Industry of British Columbia, Dean Earl D. MacPhee, Head,

Department of Commerce, University of British Columbia, emphasized the difficulty of defining an economic unit. "An economic unit is not an acreage, but it is the minimum volume of production required to provide a grower with the income he wishes. More specifically, it is the minimal number of trees which, year in and year out, will meet his standard of living. It is a composite of acreage, varieties planted, grades obtained, yields procured. In terms of acreages, we have indicated that acreages under 10 must be suspect, and will probably not qualify in most areas unless the crop is heavily specialized in high-priced commodities. In terms of grades (apples), we have indicated that culls in excess of 6 or 7 per cent and "C's" in excess of 20 per cent will probably not give an economic yield. In terms of varieties, we have indicated that only those varieties which are acceptable on the fresh-fruit market are likely to contribute to this end. In terms of yield, it is our opinion that yields of 1,000 boxes of loose apples per acre are required.

Beyond all of these factors, or perhaps as an indicator of these factors, there will remain the problem of good and poor management, which will show itself in sustained horticultural practices, yield, grade, control of labour costs, better use of machinery and equipment, care in pruning, spraying and thinning, and prompt delivery of fruit to the packing-house."

The Commissioner's statement could be applied to farmers generally by saying that the farm holding must be of a size and sufficiently well managed to provide the standard of living the operator wants for himself and his family. This presupposes efficient production of a quality commodity or commodities that can be marketed at a price and in the volume necessary to produce the required income.

The presence of a fairly large percentage of unsuccessful farm operators in a Province or country is not a recent development. They have always been with us and I see no possibility that they can be eliminated in the future. However, that does not reduce the necessity of examining the matter objectively and determining ways and means of keeping that group as small as possible.

Many of the farms in the category under discussion were established 40, 50 and 60 years ago. Returns from the small family farm were then sufficient to provide a comparatively good standard of living. Farms were more self sufficient. Virgin soils were clean, fertile, productive. Manpower was reasonably plentiful, either from the family or hired. If the latter, wages were reasonable, the calibre of the help generally, excellent, and the 40 hour week unknown. Living costs relatively were lower. Standards of living were not high, perhaps, but were reasonably in line with those enjoyed by most of society and in many cases much better. The farmer was able to bring his land into production, to stock his holding, raise and educate his family, to enjoy those amenities available in a rural community and more often than not to establish a sound operation—varying in size and value as a tangible capital asset.

To-day the farm unit, to be effective, must conform to the character of the economy as a whole. Since the early 40's particularly, technological advances and mechanization have revolutionized agriculture. The most important and basic changes are:

- (1) The shift from farming as a way of life to farming as a business and
- (2) From an art to a science and more specifically
- (3) From diversification to specialization
- (4) From small scale to assembly line character
- (5) A greater responsibility in management
- (6) Tremendous increases in operating costs
- (7) Changes in farm living standards.

The Gordon Commission showed that in the period 1946-55 the physical output per farm in Canada increased 30% while the gross physical output per man hour was up 75%.

The inability of many farmers to keep pace with those changes is in large measure responsible for the fairly large percentage who are in the group under examination.

On the other hand a substantial number, varying by region, have met all the challenges a modern age has presented. We have successful operators in every phase of our agriculture, keen businessmen, sensitive to the changes and adjustments which rapidly altering conditions require. They are well established, alert to the help that technology and technical men can provide. Their net incomes reflect their ability to gear their production to soil, climate and available markets, to adjust where that is necessary and to provide the managerial skill that is a determining factor.

Factors Influencing the Farm Economy

Province-wide, three general classes of factors are responsible largely for the condition which we are discussing—(1) Historical, (2) Physical, (3) Economic. These are usually closely interwoven.

The *Historical factors* are mainly those of the settlement days when early pre-emptions were small and because communications were poor settlers tended to establish closely together leaving little room for expansion of holdings. This is true in many regions of the Province.

Physical factors tended to keep farm units small in many areas. Potentially arable land is too often contained in narrow valleys with most of the farming done on small fans of tributary creeks. Topography is undulating, confining operations to small scale equipment. Annual precipitation, and particularly rainfall in the growing season, (see appendix N) makes irrigation essential for satisfactory crop production. Irrigation in varying measure is, in the main, desirable and often necessary in all sections of the Province from Vanderhoof south. The coastal regions have been considered the exception but there too, irrigation is practised increasingly in the Fraser Valley and on Vancouver Island.

Because of topography the methods of irrigation used are high in requirements of labour and/or capital. Traditionally furrow irrigation was practised, one man handling the application of water on 50 to 80 acres depending on slope and soil types. In recent years, sprinkler irrigation has been used to overcome labour shortages and to increase yields. This has increased capital requirements considerably.

Economically the scope of those farms has been limited because of the small size of the unit and the variability of soil types and other conditions. Lending agencies have been reluctant or more often have refused, to advance money for capital expenditures. Those, as already shown, can be high. Equipment has to be adapted to small scale operations, too often resulting in over capitalization, e.g. an orchard owner with 7 to 10 or 12 acres more often than not has equipment sufficient to operate a 40 to 50 acre holding.

Where land clearing is necessary the costs on the better soils can be high (see appendix P) in relation to the land potential.

Capital requirements have increased materially in the past 15 to 20 years to overcome manpower shortages and because the size of the economic unit required to provide a decent standard of living for a farm family has had to be increased substantially. In the East Kootenay the number of animal units required for a minimum economic beef operation has increased from 100 to 150 in this decade alone. This in turn has required more capital in machinery and equipment, more cleared and irrigated land for growing winter feed and more money tied up in livestock.

These general statements are, with appropriate adjustments, applicable across the Province.

Regionalization of the Problem

I will now review briefly the position of farmers in the regions of the Province shown in appendix A, dealing first with those engaged in livestock and mixed farming enterprises. Fruit and vegetable production will be handled separately.

Region 1—East Kootenay

An area extending through the Columbia Valley from north of Golden on the main line of the C.P.R. to the U.S. border and east to the Alberta boundary.

350 of the 600 properties showing some agricultural revenue are estimated as full time farms. A number of the 350 operators work part time at some other form of employment. About 50% are straight beef ranches or mixed farms with beef the main source of revenue. Grazing permits are held on Crown range by a substantial number.

A considerable part of the revenue of many holdings is derived from the sale of Christmas trees cut either on the home farm or ranch or under permit on Crown land. Most of the farms in the region are borderline as economic units. Many have inadequate acreage and insufficient livestock to provide a satisfactory standard of living.

My earlier general comments outlining some reasons for the incidence of non-economic farm units are particularly applicable in this region. With the exception of limited acreages along the Elk River near Fernie and in the flood plain of the Kootenay and Columbia Rivers irrigation is necessary to grow winter feed.

Region 2—West Kootenay

This region includes lands in the Creston area, along Kootenay Lake, the Slocan Valley, the Nakusp area and the areas adjacent to the Arrow Lakes and South of the Interior Provincial Highway from Rossland to Nelson.

The region developed from and around mining. Of 1422 farms listed in the 1956 census only 35% or about 600 actually produce even a fair share of family income. These might be taken as the group in which we are interested. Less than 200 provide sufficient income to support a family adequately. In much of this area the topography of steep narrow valleys and heavy timber growth is a major handicap to effective agriculture. The exception areas are the Creston Flats, reclaimed by dyking from the Kootenay River, the adjoining Camp Lister Area and the Inonoaklin Valley at Edgewood on the Arrow Lakes. A potential area of development is located at the north end of Kootenay Lake, around Lardeau and Argenta.

The two districts mentioned at Creston are the most productive in grain, hay, seeds and livestock. The land on the Flats is extremely fertile and the holdings are generally of sufficient size and well operated, providing good incomes. Proposed dams on Kootenay River will give protection from floods which are now annual hazards.

In the Camp Lister area units are being increased through purchases of neighbouring properties. A comprehensive irrigation system would be of value but preliminary surveys show construction and distribution costs to be excessive. 75% of the farmers there are now self supporting although to some extent depending on off-farm income mainly in trucking their own hay to purchasers across Kootenay Lake.

Not more than 10% of the Nelson and Trail farmers are self supporting from farm income. In the Slocan Valley, Arrow Lakes and Lardeau Districts the figure could be 1%.

It is felt 50% of the farms in the Inonoaklin Valley provide an adequate income.

Land clearing and drainage of mountain seepage are extremely costly making it difficult to clear adequate acreage. Transportation is a problem. Lack of farm credit has hindered development. Off-farm employment has been readily available providing an easy alternative to farming without the need for capital investment. Subdivision of some of the best farm land is aggravating the situation.

In the Grand Forks, Boundary District we find pretty well a composite of the two Regions just covered.

Region 3—Okanagan Valley

Leaving the tree fruit industry there for examination later, I draw the attention of the Honourable Senators to the Okanagan Valley. While beef production is extensively practised, the comments concerning that phase of agriculture to be made in dealing with the Kamloops area will be reasonably applicable.

I wish to mention particularly the mixed farming and dairying of the Central and North Okanagan where there are approximately 1,280 full-time farms.

It is estimated that about 60 to 70% of these fail to provide an adequate living. Milk and cream sales contribute substantially to the economy, being major surces of income for approximately 500 farmers. Only one third of these are felt to have adequate incomes. 25% of the fluid milk shippers market 60% of that commodity.

Acreages are generally too small. The soil is extremely variable, water for irrigation is a limiting factor. Probably no two farms in the district have similar resources in acreage, soil and soil moisture.

There are in addition, and exclusive of orchard holdings, about another 1,050 part-time farms in the district.

Salmon Arm—Shuswap Section of Region 3

Production in this section approximates closely to that of the North Okanagan. There are about 1,100 farms and ranches in the area. It is estimated that perhaps 60% of the full-time farms provide adequate income—or are economic units.

The same general conditions that obtain in the North Okanagan govern farm income in this district.

Region 4—Fraser Valley

Here we have the most important farming area in B.C. with nearly 40% of the total number of farms in the Province marketing almost 50% of our total agricultural production. The area supplies nearly 70% of all the milk produced in the Province as well as a similar volume of poultry products and 61% of the turkey production. We estimate over 4,150 farms full-time engaged in livestock and mixed farming enterprises of which about 44% are not producing adequate incomes.

Further comments will be made under the section dealing with fruit and vegetables. I will also enlarge on factors affecting agriculture generally in the Region.

Region 5—Vancouver Island

In this Region we have an agricultural economy built largely on milk production—over 12% of the provincial total, small fruits, vegetables, special crops, poultry and turkeys, sheep and swine production. Here, as in the Fraser

Valley, we have certain factors of climate and industrial and professional employment which have strong influences on farming.

There are 933 farms on Vancouver Island north of Nanaimo. Only 228 or 24% provide the entire income of the operator. Of these it is estimated that 35-40% or 80-90 farmers do not earn an adequate income from their holdings.

In the area south of Nanaimo, there are an estimated 1,000 part-time farmers and 650 full-time farmers. Income of 15% of the latter group is inadequate.

There are 237 poultry farms in the area varying from 100 layers to 10,000 layers. 54% have less than 2,000 layers indicating part-time operations.

The area has 200 full-time dairy farms. At least 20% are 30 acres or less in size. Dairy farming cannot be operated successfully as a part-time operation. The full-time farmers with inadequate income are mainly in dairying. Too many in that phase of farming have marginal operations which could easily become unprofitable if milk prices are lowered or costs increase.

Region 6—Kamloops—South Cariboo

In this Region, much of which is engaged in beef cattle production, and where we find nearly 40% of our output of lamb and wool, farm and ranch holdings are of greater size and many of them more effectively organized and longer established than in most other sections of British Columbia. This is to some extent indicated by the estimate that of 1,400 full-time operators 60% to 70% derive adequate incomes from their farms or ranches. Dairying, poultry production, turkey raising as well as the growing of some tree fruits and considerable acreages of vegetables, especially potatoes and tomatoes, are other substantial sources of revenue.

The better operated well established cattle ranches are generally in sound positions. Good cattle prices these past two years have enabled a number of operators here as in other beef producing areas to pay off overdrafts and achieve a stability that should permit them to weather reasonably well any period of lower values that may develop. There are, of course, a number of operators in less favourable positions for reasons which will appear later.

Regions 3, 6 and 7, Okanagan, Kamloops, Cariboo, produce 80% of all the beef cattle raised in B.C. The comments just made in relation to that phase of agriculture in Region 6 apply equally in those other two regions.

It should be pointed out that returns from beef represent 30% of all income from livestock and livestock products in the Okanagan, nearly 75% in Kamloops area and 80% in the Cariboo.

Region 7—Cariboo

However, in the Cariboo and in the northern and eastern sections particularly there is a large segment of the farm economy whose position is not as satisfactory. It is estimated that only 30% of all farms and small ranches in the group referred to are self-sufficient, another 30% operated full-time do not provide an adequate living, 30% are part-time operations and 10% are either deserted or lived on with no effort to work them. Land clearing is expensive. Irrigation is necessary in many areas.

There is a short growing season and marketing facilities leave much to be desired, all contributing to a condition which is far from satisfactory. Quesnel, Williams Lake, the 100 Mile House area provide certain opportunities for off-farm employment not, however, available in other districts.

Region 9—Central British Columbia

This region extending from Tete Jaune Cache on the C.N.R. not too far from Jasper to Terrace near Prince Rupert on the west is in many ways still a pioneer area closely resembling the North Cariboo which joins it on the

south. In both areas the extension of the Pacific Great Eastern Railway to the Peace River and the industrial development of the past few years, including Kemano-Kitimat projects, the cellulose plant at Prince Rupert and other similar evidences of initiative have provided an encouragement to farming which was greatly needed. Although there is evidence of some upsurge in agriculture, the existing situation is less than satisfactory. It is estimated that of approximately 1,050 full-time farmers, 70% at least do not obtain an adequate income from farm operations.

This Region has a topography more favourable to the development of fairly large scale holdings where fields can be of good size.

Most of the land in cultivation was cleared from heavy cover and additional acreage must be obtained from similar sources—at considerable expense. There is a limited frost free period. Water for domestic use and for stock is often difficult to obtain.

The soil is of relatively low fertility needing good management—precipitation in the growing season is too often inadequate. Farm units are too small. It is generally felt that an economic unit requires a minimum of 200 acres of arable land. This is found all too seldom.

There are opportunities for milk production, for specialized egg and poultry meat production, for sheep raising, for beef growing, for vegetables, especially turnips.

Markets exist if production in quality and volume is planned. There is good rail connection to Vancouver and to Edmonton but distances are long and freight costs high in relation to commodity values. Hence the need for exploring all local outlets.

It is worth noting Region 9 has just over 100,000 acres of land under cultivation but produces less than 2% of the provincial agricultural income. It is estimated a further 1 million acres at least are potential farm land.

Region 10—Peace River

As mentioned earlier this Region resembles the adjoining areas of Alberta. The development of the petroleum industry and the extension of the Pacific Great Eastern Railway have changed the general economy completely. These meant employment at high wages with which a farmer wanting help had to compete, provided opportunities for farmers themselves to work—often at the neglect of their holdings. They brought in thousands more people and a market for much local produce. The railway has given direct access to markets in the greater Vancouver area.

However, at this time my information shows that over 60% of the full-time farms are returning inadequate incomes to their operators.

Many of the comments on Region 9 are equally applicable here.

It is considered 450 acres of cultivated land well farmed is a minimum economic unit in the Peace River area. This means the total farm acreage should be at least a section or 640 acres.

Many of those quite inadequate incomes have sufficient land but it is of poor quality. They have insufficient capital and equipment or they have paid too much money for equipment larger than they require. Production is low due often to poor managerial ability. Some have expanded rather than developed existing acreage to capacity. Clearing is costly in relation to returns. The quota system of marketing grain has brought too much diversification. Not enough grain is raised to meet expenses. While the growing season is limited by late and early frosts, a late seeding year is too often followed by an early winter with unfavourable harvesting weather.

That, Mr. Chairman, is a brief resume of the position of farmers engaged in general agriculture in the 9 Regions of the Province.

I will now review the fruit and vegetable situation.

Problems in Tree Fruit Production

The major portion of our tree fruit production—apples, pears, peaches, apricots, plums, crabapples, is centred in the Okanagan Valley with some production in the West Kootenays and a very limited amount at the Coast.

In the Creston area approximately 25% of the orchard operators are making a full-time living from fruit production. In the remainder of the West Kootenay not more than 15% are in that position. In Creston, subdivision has broken up most of the orchards. Up till 1950 prices for tree fruits were such that a fair living was possible from 5 acres. Many large holdings were broken into blocks of this size. Present fruit prices make 5 acres no longer economic.

As demand for home sites increased prices for land have soared and consequently many orchard owners have sold at values that tree fruit prices cannot meet.

Okanagan Valley

Most of our tree fruits are grown in the area from Osoyos and Keremeos in the South Okanagan to Vernon in the North. The last census by my Department showed 3599 growers with one acre or more. Of these 1827 or 50.76% operated 7.5 acres or less. In a further breakdown, 1447 of these or 40% of the total operated between one and 5 acres. These latter at least would be in the group with which I dealt earlier who were full-time employed elsewhere or mainly so.

31% of the Okanagan growers or 1119 have holdings between 5 and 10 acres. As in the Creston area, those holdings were able to provide a good living in the 40's but with some notable exceptions many of the full-time operators in this group are now hard hit. The 1949-50 freeze and the 1955 freeze caused serious damage to many orchards with a considerable loss of trees and reduced production in others. Many in this group fall in the category your committee is examining as do a number of those in the next 1033 growers with orchards of 10 acres or over. Even the sub-group of 490 growers operating over 15 acres is not without problems but should be in a better position to survive.

Some of the reasons for insufficient income from full-time orchards are:

- (a) Shortage of equipment operators interested in doing custom work. Orchard equipment is costly and that required for 10 acres would be adequate for 40 or 50 acres. Heavy capital costs for a limited production constitute a severe burden.
- (b) Many small orchards are inadequately cared for resulting in poor yield and quality with low financial returns and a difficult problem of marketing.
- (c) Tree renewal is an integral part of a well managed orchard operation. This is possible only if the orchard is large enough to follow a plan that requires a portion of the land to yield no return while the new trees are growing.
- (d) The competition from U.S. fruit at prices that do not reflect costs of production. The freight rate increases that have put many markets out of reach.
- (e) Constantly increasing costs of production, goods and services.
- (f) Orchards located in areas and on soils not suited for tree fruit growing.
- (g) Competition for available labour from industries able to offer higher wages than fruit growing can afford at any level under present conditions.

Problems in Small Fruit Production

Confined to the Fraser Valley, Vancouver Island and some limited production at certain interior points.

In the Fraser Valley the 1955 freeze practically decimated the small fruit industry. There is substantial evidence of a revival but unfortunately we still have too many small acreages. In the 1957 survey, 92% of the strawberry acreage was in the hands of 686 growers each with less than 5 acres and 313 with one acre or less. 7% of the growers had 5 acres or more. It is of interest that 52 growers operating 550 acres produced 2000 tons of strawberries while 668 growers with 1000 acres produced the same tonnage.

The situation is similar in raspberries with 97.1% of the growers having less than 5 acres and 56.3% less than one acre.

Vancouver Island has about 100 full-time growers of strawberries and loganberries. Most of these are receiving an adequate farm income from a combination of small fruits and vegetables. Another 500 part-time growers secure at least 40% of their incomes from similar endeavours. As in other farm enterprises a few with sufficient acreages do not make a good living due to poor soil, lack of water and largely poor management.

Small Fruits General

The size of the fruit and vegetable crops produced in the Fraser Valley or on Vancouver Island have little effect on the price the grower receives. The total crop produced in California, Oregon and Washington determines the old maxim of supply and demand.

An overproduction of strawberries in those States in recent years has not only reduced prices of that commodity but influenced adversely the price of raspberries too.

Availability of labour influences unit size. The grower cannot compete with industrial employers in the wage market and limits his acreage to available local labour.

Inferior produce too frequently sold by small growers is a detriment to the industry, increases processing costs, depresses grower prices and gives the local commodity adverse publicity.

Problems in Vegetable Production

Vegetable acreage in B.C. exceeds 12,500 acres in the Kootenays, Okanagan, Kamloops, Fraser Valley and Vancouver Island areas mostly, with some limited volume in Central B.C. and the North Cariboo. B.C. potatoes are a well known commodity.

In the Fraser Valley we have approximately 500 vegetable growers. Apart from the growers of potatoes, it is estimated 20% are operating on a scale that will not provide an adequate income. The larger operators, however, mostly within thirty miles of Vancouver, who specialize in growing vegetables, are reasonably successful—some very much so. Those men deliver produce by truck direct to chain store wholesalers and independent wholesalers.

This is in contrast to growers in the Grand Forks, Okanagan and Kamloops areas whose produce is hauled to a local packinghouse for grading and packing and then shipped long distances by rail or truck to our main coastal markets or early crops to Alberta. The costs involved, including freight charges already referred to, reduce net returns to a very low figure. This is one reason for the serious steady decline in the volume of British Columbia vegetables appearing on the Vancouver markets.

Only onions and potatoes show prospects of maintaining and increasing shipments—if present import duties are maintained.

Among 200 late potato growers in the Fraser Valley, 43% grow 5 acres or less, 17% 6-10 acres and 40% over 10 acres. As in small fruits, prices of vegetables are set pretty well by United States quotations. Duties on imported commodities are a help. Perhaps, however, the permanent answer may lie in the larger growers with sufficient acreage patterning their operations along

the line followed by larger row-crop farmers in the United States, mechanising fully and practising the most modern methods of production, packaging and distribution.

The present inflationary trend is an adverse factor: Modernization of operations and improved management practises are essential to survival in the face of extra-provincial competition. This would to some extent offset the high cost of man labour in an area where industry is paying the highest wages in Canada, and where land that formerly grew most of Vancouver's vegetable supplies has been and continues to be bought at high prices for industrial development.

Specialized Horticulture

It is interesting that in the lower Fraser Valley alone we have 360 small farm units growing specialized crops not yet noted—blueberries, mushrooms, bulbs, holly, nuts—77 of these are full-time operators.

In addition we find production of cranberries, rhubarb, hops, etc. all contributing to the economy as well as a score of other commodities in smaller volume.

We have 585 greenhouse operators with over 3½ million square feet of glass and about 1,300 commercial nurseries of one kind or another.

In certain areas of the Fraser Valley, but more particularly on south Vancouver, Island, a large contribution is made from bulb growing and from the shipment of cut flowers, mostly daffodils and tulips, to all parts of Canada. This is fast becoming big business with air freight used extensively.

In all, those Horticultural specialty crops have a production value of approximately \$5,000,000.00 and will continue to expand in volume and value as will apiculture which now contributes over \$1,000,000.00 annually to the economy.

THE EXTENT AND SIGNIFICANCE OF THE PROBLEM

Mr. Chairman, the estimates in relation to the extent of inadequate incomes on full-time farms in my Province which I have just reviewed reflect the considered opinions of my Departmental staffs, particularly District Agriculturists and District Horticulturists, who are in day to day contact with the operators in their areas.

Every region has a percentage of those farmers under discussion, varying from a low of 25% to a high of 75% of the total full-time farmer force.

The general position is not good. It must, however, be clearly understood that all of the farmers in the inadequate income group are not poverty stricken. Some are undoubtedly in serious financial difficulties to an extent that imposes an extremely low standard of living. A majority, however, are "getting by" but at the cost of denying themselves and their families amenities to which every home should be entitled. They are living off depreciation, unable to maintain or replace buildings and equipment, to improve livestock or farming practises, to acquire more land where that is desirable.

Where a region or area largely agricultural in nature has too great a percentage of farmers in that position, where the land reflects poor farming practises, the homes and buildings are unpainted and dilapidated, fences sagging, the community as a whole soon acquires a similar appearance and an equally unsatisfactory position financially. Rehabilitation then becomes a major operation extending beyond the actual farm area and requiring a revitalizing of the whole local economy. This, however, can happen only if the basic cause—the low income farm—is first put in a stable position.

The problem extends across the entire province, though, as I have shown, more acute in some regions than others. In those areas where it is most evident it has a significant impact on the outlook of the farm population particularly, though its influence does not stop there. Too often we find areas where it has developed an attitude of defeatism, of resignation to what is felt to be an incurable situation. It destroys initiative, lowers morale and not infrequently has led to mental breakdowns in men and women.

It is a situation which cannot but be detrimental at any level not only to the farm families concerned, and to the community but to the provincial economy as a whole. No country can prosper unless its agricultural potential develops and prospers as part of the whole.

Causes of the Situation Leading to Inadequate Farm Income

Throughout my presentation direct and indirect reference has been made to some of the causes of low income and to some of the reasons why the farms under review have persisted. The basic reasons underlying the situation and some of the causes of low income can be grouped together and briefly summarized. No significance has been attached to the order in which the items are listed. The following factors are those which appear to be common to all areas of the province and to all types of farm enterprise.

1. (a) Farms situated on marginal or sub-marginal land,
 (b) Crops and varieties planted in areas which are marginal or sub-marginal for satisfactory production: and growing of crops and varieties that do not have consumer acceptance.
2. The size of the farm and the type.
3. Lack of initial and working capital.
4. Poor management of lands, labour, capital.
5. Lack of desire or initiative to improve.
6. Availability of off-farm work or the lack of available farm labour.
7. Conflict or competition between urban and rural development.
8. (a) Competition from imported farm produce at prices below cost of local production and often grown on lands reclaimed largely by Federal finances.
 (b) Vertical Integration in the United States and Eastern Canada has resulted in commodities so produced breaking the Vancouver market.
9. High prices of farm land. In many areas land is sold, not at prices that could be paid from agricultural production, but at sub-division values for residential or commercial use.
10. Lack of sound marketing co-operatives.
11. Freight rates.

As a good number of farms are no problem and are in fact quite successful, it appears that the criteria for judging the relative importance of some of these causes of low income is based primarily on how many of the factors are involved in any one individual enterprise. If we assume that the farm business is small insofar as physical features are concerned, that the soil is moderately good and the farm operator has the initiative or the desire to succeed, then it would appear as though one of the critical factors in making a success of the farm enterprise is concerned with the efficient management of available resources (land, labour, capital). Small farm operators who state very emphatically that small farms are not a problem are those who had been able to adapt their operations to changing conditions and are in addition, efficient managers.

In a good number of cases, however, a problem is caused by outside influences. For example the location of the farm enterprise may be such that there is no room for expansion or that land prices have increased unreasonably and that high taxes have made it necessary to dispose of the farm unit. As some of the best agricultural land in the country, land situated in the most favourable climatic areas, is being removed from agricultural production by the expansion of industrial and housing developments, it is apparent that some of our inadequate farm units have resulted from this expansion of non-agricultural enterprises into agricultural areas (urban sprawl).

The opposite situation is equally as impressive where farm units are being initially developed or where abandoned farms are being reactivated. This type of farm is in the process of growing into a larger, more economic unit and is most commonly found in the more sparsely populated and more pioneer regions of the province.

There are of course a good many farmers who are not restricted insofar as area for expansion is concerned who may have the managerial ability but who are unable to establish more efficient or more economical units because of lack of sufficient capital. This of course is a very real problem and will be dealt with further.

Market conditions and establishment of prices of crops such as fruits and vegetables by the competitive influence of production from American processors is very often responsible for the size of the production unit. Investors are reluctant to engage in large scale operations in this field of activity especially when the returns are so greatly influenced by foreign competition. There is evidence, however, that when a reasonably stable market exists, producers are able to plan programmes more effectively and in such cases in the course of time the inefficient producer is gradually eliminated.

In contrast there are many cases where the major force in operation is a lack of desire to expand or initiative to improve the farm operations. Not only is the level of living below that which is generally considered to be satisfactory, but the standard of living is likewise below normal. This class of individual is quite content to carry on with what is commonly termed as inadequate income. He is quite prepared to sacrifice monetary returns for the feeling of independence and security which the ownership of a small farm gives him.

I wish to indicate another situation which adversely affects production of certain commodities in British Columbia. Most of our grains are grown in the Peace River area with Creston perhaps having the second volume of production. The total of both, however, is relatively small.

We have a large dairy industry with milk production last year substantially in excess of 700,000,000 lbs. . . Our poultry industry is large both in egg and in broiler production with turkey raising also a major enterprise. Beef cattle are an important part of the economy.

It is evident therefore we require a large volume of feed grain in excess of that produced provincially. The Federal freight assistance on the railroad movement of feed grain from Alberta is very greatly appreciated, particularly the more recent application to feed grain shipped over the Pacific Great Eastern Railway to other points in British Columbia from the Peace River.

In spite of that assistance, however, our producers of the commodities mentioned are still severely handicapped in competing with Alberta production where feed grain moves from farm to farm by truck at prices very substantially lower than those we pay through Wheat Board channels.

We are happy that freight assistance is available on farmer to farmer transactions from the Peace River over the P.G.E. Railway but that concession is of limited value in relation to the advantages prairie feeders enjoy. The situation outlined is responsible in a substantial degree for the small number of beef

cattle finished in British Columbia and the consequent heavy imports from Alberta feed lots. Our producers must almost inevitably try to market grass-fed cattle in the fall—often at a price that appears unwarrantably low in comparison to grain-feds, or dispose of calves and long yearlings as stockers and feeders. Recent United States demand has accelerated this latter movement.

I make these observations to emphasize a factor that drastically increases cost of producing certain commodities and is another influence in creating the situation under examination.

Suggestions for Improving the Situation.

Reference has been made to the lack of sufficient working capital by means of which the size of the farm may be increased or which can be used for the purchase of labour saving devices which will increase the productivity per unit. A partial solution to this problem could be the extension of substantial long-term loans at comparatively low interest rates. This form of assistance, however, should be dependent upon two factors, namely, it must be satisfactorily supervised and it should be extended only to those who have demonstrated management ability. This suggestion for improving the farm situation will not automatically meet with favour by operators who are naturally reluctant to take advantage of loans. In many cases the farmer who most needs assistance is often the most reluctant to burden himself with a debt which he sees no certainty of being able to repay. In many instances it can be safely said that the small farmer is not so much short of credit but rather that his business is not credit worthy. What is needed in these cases is the transformation of the enterprise so that it provides a real base on which additional credit can be usefully employed.

Closely allied to the suggestion of improving the credit is the recommendation that some form of instruction or similar assistance be provided in the field of record keeping and farm management. Such a programme has already been initiated on a limited scale by this province and we intend to proceed as rapidly as possible to make this programme available to all who desire to take advantage of it.

In my opinion management is the most important factor in developing and maintaining a profitable farm enterprise. Admittedly in some years and in certain production and price cycles, even the good manager will fail to break even. He will, however, be far closer to it than the man who is a poor manager.

This is going to be increasingly evident as agriculture generally is recognizing it is no different to any other industry—when the chips are down and all the variables farming has to endure are taken into account, management will be the factor that determines profit or loss.

It is accepted that, basically, volume of farm production depends largely on soil, water and temperature and the manner in which the operator adapts his practises to use them to best advantage. Therefore, location of the holding is of prime importance. Too many men, from lack of capital as well as from ignorance, have bought inferior land. Many have learned too late additional costs where irrigation, dyking or drainage are necessary for best land use.

There is an urgent need for a Federal Act on Conservation and Reclamation that would be Canada-wide in scope and application. This proposed legislation would include the present Prairie Farm Rehabilitation Act and the Maritime Reclamation Authority. It would provide authority for the Federal Minister of Agriculture, through a new agency, to participate financially with the Provinces and possibly with municipalities in agreed-upon projects:—for the reclamation of agricultural land by irrigation, by dyking, by drainage; to correct and prevent river bank and stream bank erosion; to provide water

storage systems for flood prevention; for soil erosion control; for land clearing and for any other project for the benefit of an agricultural area.

This legislation should also assist financially in rehabilitating existing irrigation, dyking and drainage systems—a responsibility beyond the financial competence of the Province and the local authority.

British Columbia has since 1946 assisted 6,777 farmers financially to clear and develop over 75,000 acres of land, at a total cost of \$2,870,029.00. A new policy now permits maximum credit of \$5,000 to a farmer with up to 20 years for repayment at 4% interest, and in certain conditions, no principal payment required in the first 3 years.

Because of the conflict existing in many areas between urban and rural development, it is strongly recommended that for the future welfare of our country land use surveys be conducted in all the major agriculture regions of the country. By this means zones may be established setting aside agricultural housing and industrial lands which would avoid the repetition of existing problems where industrial and residential areas are situated on good agricultural land while nearby land equally as suitable for non-agricultural development lies idle.

No new area should be opened for settlement until a thorough soil survey has been made and climatic and other factors examined. Only when those various conditions are considered satisfactory should development be permitted.

Anyone intending to purchase land for farming should consult the local representative of the Department of Agriculture to obtain this essential information. Efficient management commences in the selection of the farm.

While it is not the intention to consider the part-time farmer at this period he does have an important influence in many farm communities. He provides assistance for full-time farmers and for those part-time farmers who intend to become full-time operators as conditions warrant.

There is an urgent need for more research in every phase of agriculture. I hope, sincerely, that the reorganization of the Canada Department of Agriculture will permit more attention to provincial and regional requirements in this field. This is no reflection on the work done previously. While the co-ordination of effort between the Federal Department, the University of British Columbia and my own Department is excellent, I propose to do everything in my power to improve that situation, to bring representatives of those three agencies together with producer groups for consultation and necessary action. I have already established certain committees on a commodity basis to advise me on necessary policies and projects.

From research one naturally moves to extension—a provincial responsibility. No matter how valuable the work of the research group, it is of little use till applied at the farm level through the influence of the extension worker. We will meet our responsibilities in this field.

I wish to emphasize also the need for more economic studies of production and of marketing. There should be more work done to determine consumer preferences; the reasons—and how these can be met in a practical way.

Marketing Co-operatives have proved their worth in British Columbia. There should be more, with emphasis on a quality product acceptable to the consumer, supplied in constant volume and a price that is attractive enough for repeat orders while leaving a fair profit to the producer. Co-operatives have a great place in the rehabilitation of agricultural areas.

We require a continuation of the Federal Assistance policy on feed grain whereby in 1958 the movement of 205,041 tons of grain was assisted at a total cost of \$1,586,090.00.

It is imperative that general and specific freight rates be not increased. Any upward revision will adversely affect agriculture here.

I wish to emphasize that our tree fruit industry, essential to the economic well-being of the Okanagan particularly, must be maintained at a maximum state of prosperity. Small fruit production and vegetable production are main income sources for a substantial percentage of our farmers. Poultry meat and turkey production contribute increasingly to our farm revenue and are single income sources for more farmers each year.

In our opinion the Government of Canada must assure adequate protection against importations of American produce that are offered at prices which are completely unrealistic in relation to production and marketing costs. Tariffs and duties must be applied realistically before the harm is done—not after.

In his report as the Royal Commission on the British Columbia Tree-Fruit Industry, Dean MacPhee has dealt exhaustively with the position of, and the problems facing, that valuable segment of our economy. He has made certain recommendations in relation to orchard size, obsolete varieties, marginal and submarginal land, marketing problems, marketing organization, etc., I have brought with me a copy of his report that the Committee may have it examined in detail. My Government has accepted the report and is prepared to work closely with growers in its implementation.

The amendments suggested to the Natural Products Marketing Act were made by the Legislature.

We realize that the technological advances in agriculture to which reference has already been made have contributed to the problem being discussed. Apart from the influence of vertical integration and contract farming on total production of certain commodities in some areas, individual farmers who have increased their holdings and operations, who have mechanised extensively, are in many cases turning out greater volume per production unit at a substantially lower cost per sale unit. Consequently he can often afford to sell at a price profitable to him but which does not pay cost of production for too many other operators who have not or cannot change their methods. This is a development which we may expect to continue and in course of which the problem of the inadequate income farm may grow larger.

Some may be able to acquire more land where that is the answer: others will no doubt adapt to changing conditions: both groups will require additional capital as well as initiative and drive.

In every industry, profession or job of work there are square pegs in round holes. Perhaps farming has more than its share. Many trying—and failing—to make a living from the land would be well advised to move to some other field of endeavour in which they were better adapted where they would very likely make excellent contributions.

It is recognized the change over might not be easy but might be essential. Governments may require to co-operate in bringing such changes about. They may also find it necessary to do so where a farmer is located on a marginal or submarginal holding and can be moved, if that appears a wise course, to land where his chances of success appear sound.

I have attempted to point out some ways in which Governments can assist in correcting the problem discussed. There are no doubt others which will occur to the Committee.

Governments can, however, only do so much—the industry and the individual has responsibilities that must be recognized.

In dealing with the tree fruit industry, Dean MacPhee wrote:

In our free society, all that can be done is to state as pointedly and as clearly as possible the accepted facts and the prevailing attitudes of those engaged in a particular way of life. If the Commissioner should find that acreages under $7\frac{1}{2}$ or 10 acres, or any other size, in any or all of the areas cannot be depended on to produce a return sufficient for the

growth and education of a family, and for the maintenance of a reasonable standard of living, then the social implications, and the implications for the individual farmer, must be that if he operates a lesser size of unit, he is freely accepting a lower standard of living or will become a part-time horticulturist. Should he accept the role deliberately of operating, knowingly, on an acreage that cannot provide a standard of living he wishes, then he cannot expect society to feel responsibility for his plight.

It is extremely difficult to say which region of British Columbia requires special investigation or special treatment. The Economics Division, Canada Department of Agriculture, has co-operated exceptionally well with the British Columbia Department of Agriculture and has performed an outstanding job in surveying regional situations through farm and market studies. It is possible that the knowledge and the experiences of this agency might be well utilized in attempting to secure further specific data on the farm situation now being reviewed by this Committee.

Family farms can in the future as in past, be the backbone of our rural communities—the source of men and women to fill positions of responsibility and trust in the professions, in the commerce, in the working force of the nation as well as the production centres of farm commodities—but the family must be a holding geared to present-day conditions and those of the years ahead—a straight business organization large enough to give gainful employment and adequate returns to the members of the family interested and managed to make the best use of available resources.

APPENDIX B

LAND AND FRESH WATER AREA OF BRITISH COLUMBIA

Land and fresh water.....	234,115,331 acres
Barren.....	50,000,000 acres
Lakes, rivers, swamps.....	9,000,000 acres
Forest land total.....	136,700,000 acres
Range.....	19,000,000 acres

NOTE: Part of this included as forest land (scant forest cover)

Agricultural farm area.....	4,702,274 acres—2 % land area
improved land.....	1,147,725 acres— .5 % land area
crop land.....	1,000,000 acres— .43% land area

APPENDIX C

IRRIGATION, DYKING AND DRAINAGE

Irrigable Acreage.....	400,000
Irrigated Acreage.....	214,000—75% individual —25% district projects
Water Service Charges.....	Vary considerably but a substantial number of projects charge from \$15.00 to \$25.00 per acre.
Acreage Dyked.....	250,000 acres (organized districts, all but 2 of which are in Lower Fraser Valley)
Total investment almost.....	30,000,000.
Annual charges.....	run as high as \$13.00 per acre.

APPENDIX D

POTENTIAL ARABLE ACRES

Region 1—E. Kootenay.....	400,000
Region 2—W. Kootenay.....	160,000
Region 3—Okanagan.....	80,000
Region 4—Fr. Valley.....	300,000
Region 5—Van. Island.....	500,000
Region 6—Kamloops.....	75,000
Region 7—Cariboo.....	100,000
Region 8—Limited Agricultural Potential.....	1,000,000
Region 9—Central B.C.....	2,000,000
Region 10—Peace River.....	2,000,000
TOTAL.....	4,615,000

APPENDIX E

FARM POPULATION

	1931	1941	1951	1956	% Change in 25 Years
East and West Kootenays.....	13,729	12,696	12,601	8,486	- 38
Okanagan.....	15,846	17,251	23,998	24,155	+ 35
Lower Mainland.....	32,441	34,443	45,310	40,541	+ 20
Vancouver Island.....	14,743	12,267	12,252	13,957	- 5
South Cariboo.....	10,855	11,111	11,136	11,224	+ 3
Central B.C.....	7,683	8,312	8,544	8,282	+ 7
Peace River.....	3,485	5,311	5,640	5,250	+ 34
TOTAL.....	102,367	102,446	120,292	112,668	+ 12
B.C. Population.....	694,263	817,861	1,165,210	1,398,464	+101
Farm Population as % Total Population.....	14.7	12.5	10.3	8.0	- 6.7

SIZE OF FARMS

No. Farms	26,079	26,394	26,406	24,748
1— 4 acres.....	2,430	2,136	2,277	705 (under 3A)
5— 10 “.....	5,327	5,320	6,637	5,664 (3— 9)
11— 50 “.....	7,857	8,224	8,242	10,573 (10— 60)
51—100 “.....	2,595	2,744	2,494	4,357 (70—239)
101—200 “.....	4,638	4,242	2,896	3,449 (Over 240)
Over 200 acres.....	3,232	3,728	3,860	

SOURCE: DOMINION BUREAU OF STATISTICS OTTAWA

APPENDIX F

FARM CASH INCOME FROM THE SALE OF FARM PRODUCTS, 1957

thousand dollars

Wheat.....	\$ 1,182
Barley.....	767
Oats.....	251
Flaxseed.....	311
Clover and grass seed.....	426
Hay.....	85
<hr/>	
Total Grain, Seeds, Hay.....	3,022
Potatoes.....	2,653
Vegetables.....	6,630
Tobacco.....	42
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Total Field Crops.....	9,325
Cattle and calves.....	16,138
Sheep and lambs.....	485
Hogs.....	2,347
Poultry.....	12,098
<hr/>	
Total Livestock, Poultry.....	31,068
Dairy Products.....	33,692
Fruits.....	15,455
Eggs.....	12,396
Wool.....	120
Honey.....	305
Miscellaneous.....	12,363
Supplementary payments.....	7
<hr/>	
TOTAL CASH INCOME.....	\$ 117,753

APPENDIX G

NET INCOME OF FARM OPERATORS FROM FARMING OPERATIONS, 1940-1957

thousand dollars

1940.....	\$ 19,691
1941.....	23,527
1942.....	29,413
1943.....	38,292
1944.....	44,861
1945.....	46,877
1946.....	46,043
1947.....	47,810
1948.....	51,762
1949.....	54,874
1950.....	44,440
1951.....	57,702
1952.....	58,202
1953.....	58,043
1954.....	52,035
1955.....	48,331
1956.....	53,063
1957.....	55,363

SOURCE: DOMINION BUREAU OF STATISTICS
OTTAWA.

APPENDIX

TABLE

LIVESTOCK PRODUCTION IN

	REGION 1 East Kootenay	REGION 2 West Kootenay	REGION 3 Okanagan	REGION 4 Fraser Valley
NUMBER OF ANIMALS:				
Dairy.....	1.6 2,976	3.8 7,068	10.7 19,902	68.2 126,852
Beef.....	4.5 8,652	2.2 4,287	15.6 29,938	2.0 3,858
Swine.....	1.4 691	3.4 1,607	15.0 7,045	20.6 9,696
Sheep.....	1.7 1,477	.85 705	22.0 18,310	7.9 6,365
Hens and Chickens.....	.8 35,931	4.0 165,613	10.3 432,408	66.0 2,970,110
Turkeys.....	1.1 3,916	2.0 7,120	8.0 28,480	61.0 217,160

% B.C. Total (shown in italic)

TABLE

PRODUCTION VALUE:									
			1.9		4.5		8.1		66.6
Dairy.....	40.0	\$ 598,723	52.4	\$ 1,411,081	33.5	\$ 2,528,335	56.4	\$20,720,184	
Beef	42.7	637,371	11.7	315,168	29.2	2,204,769	.8	284,214	2.0
Swine.....	2.5	37,014	3.2	86,115	5.0	377,448	1.4	519,463	21.0
Sheep.....	.6	9,184	.2	4,386	1.5	113,829	.1	40,815	7.9
Hens and Chickens.....	11.1	165,240	30.7	826,200	28.2	2,127,465	37.1	13,632,300	66.0
Turkeys.....	1.8	27,412	1.9	49,840	2.6	199,360	4.1	1,520,120	61.3
Total Livestock Production Value.....		\$ 1,472,944		\$ 2,692,790		\$ 7,551,206		\$36,717,096	
		2.1		3.8		10.6		51.4	

% B.C. Total (shown in italic)

% in Region (shown in black face type).
Production Value (shown in light face type).

TABLE

CROP PRODUCTION IN

	REGION 1 East Kootenay	REGION 2 West Kootenay	REGION 3 Okanagan	REGION 4 Fraser Valley	
ACREAGE:					
Tree Fruit.....		7.9 3,243	7.8 3,243	84.6 35,148	3.5 1,448
Small Fruit.....		.6 245	3.8 245	12.0 776	74.5 4,797
Vegetables and Potatoes.....	1.16 385	1.18 385	2.26 741	27.0 8,832	56.3 18,412
Special Horticulture.....			6.0 741	5.0 127	65.0 1,649
Grain.....	8.15 2,700	1.07 34.3	5.5 14,000	10.1 25,600	5.9 14,950
Forage Crops.....	90.5 30,000	4.9 49.0	3.3 20,000	12.3 75,000	28.8 175,000
Forage Seed.....	.18 60	.25 6.4	11.0 2,600	8.5 2,000	6.4 1,520
Total Acreage.....	33,145 3.4	40,829 4.2	147,481 15.2	217,776 22.5	

% B.C. Acreage for That Crop (shown in italic)
% of Regional Acreage (shown in black face type).
Production Value (shown in light face type).

H

A

BRITISH COLUMBIA (1954)

REGION 5 Vancouver Island	REGION 6 Kamloops	REGION 7 Cariboo	REGION 9 Central B.C.	REGION 10 Peace River	TOTALS
9.3	1.0	1.4	2.8	1.2	
17,298	1,860	2,604	5,208	2,232	186,000
.85	26.2	38.4	5.3	4.8	
1,661	49,980	73,348	10,149	9,129	191,000
10.0	11.1	6.8	.1	31.5	
4,700	5,250	3,200	52	14,833	47,074
16.8	37.2	11.2	.03	2.0	
13,977	30,917	9,362	83	1,690	82,856
11.3	2.0	3.4	.1	2.1	
467,103	85,075	109,445	4,130	89,621	4,359,436
22.0	3.0	.9	.04	1.6	
78,320	10,680	3,204	142	5,606	354,718

B

53.0	\$ 3,767,412	5.8	\$ 286,934	5.9	\$ 401,758	56.2	\$ 992,478	17.2	\$ 405,091	43.6	\$31,109,996
	.85		26.2		38.4		5.3		4.8		19.7
1.7	119,595	74.7	3,684,933	80.0	5,402,880	42.3	748,524	28.5	672,546		14,070,000
	9.9		11.0		6.7		.1		31.4		3.5
3.5	251,800	5.7	281,260	2.5	171,475	.2	2,769	33.7	794,680		2,522,024
	16.8		37.1		11.2		.3		2.0		.7
1.2	86,894	3.9	192,210	.9	58,204	.1	1,548	.4	10,320		517,390
	11.3		2.0		3.4		.1		2.1		29.0
32.9	2,335,145	8.4	413,100	10.4	702,270	1.2	20,655	18.5	437,550		20,659,925
	22.1		3.0		.9		.04		1.6		3.5
7.7	548,240	1.5	74,760	.3	22,428	.1	994	1.7	39,872		2,483,026
	\$ 7,109,086		\$ 4,933,197		\$ 6,759,015		\$ 1,766,968		\$ 2,360,059		\$71,362,361
	10.0		6.9		9.5		2.5		3.3		

C

BRITISH COLUMBIA (1954)

REGION 5 Vancouver Island	REGION 6 Kamloops	REGION 7 Cariboo	REGION 9 Central B.C.	REGION 10 Peace River	TOTALS
0.66	.87	3.2		.01	4.3
	362	1,332		4	41,535
	9.4	.26		.03	.7
1.1	605	17		2	6,442
	9.0	2.9		.1	3.3
5.3	2,945	945	1.2	60	32,720
	30.0		410		.3
1.4	761				2,537
	.88	1.6	1.8	4.3	26.1
4.0	2,230	4,200	4,500	78.2	253,230
	7.9	9.9	14.0	5.7	62.8
87.4	48,000	60,000	85,000	15.7	608,000
		.85	16.1	56.8	2.5
	.3	200	4.0	3,800	23,580
				6.0	
	54,903	66,694	89,910	222,400	968,044
	5.7	6.9	9.3	23.0	100%

TABLE
CROP PRODUCTION IN

	REGION 1 East Kootenay		REGION 2 West Kootenay		REGION 3 Okanagan		REGION 4 Fraser Valley	
PRODUCTION VALUE:								
Tree fruit.....	\$		25.7	\$ 396,045	73.4	\$ 7,766,372	1.4	\$ 182,013
Small fruit.....			13.4	207,035	1.47	154,958	31.6	4,070,642
Vegetables and potatoes.....	80.0	211,000	10.2	157,518	16.5	1,742,811	40.7	5,244,538
Special horticulture.....					1.9	201,300	20.3	2,616,900
Grain.....	0.5	1,350	29.8	460,000	4.7	499,800	1.6	213,750
Forage (sold).....	18.9	50,000	8.1	125,000	0.9	95,000	3.5	450,000
Forage seed.....	0.6	1,600	12.6	195,160	1.1	114,600	0.76	98,000
Total crop production value.....	\$	263,950		\$ 1,540,758		\$10,574,841		\$12,875,843
% Total Agricultural Regional Production Value.....		15.2		36.4		58.3		26.0

% Total B.C. Value for Crop (shown in italic)

% of Regional Value of Crop Production (shown in black face type).

Production Value (shown in light face type).

SUMMARY OF TABLES

Total livestock production value.....	\$	2.1 1,472,944	\$	3.8 2,692,790	\$	10.6 7,551,206	\$	51.4 36,717,096
% Total Agricultural Regional Production Value.....		84.8		63.6		41.7		74.0
Total crop production value.....	\$	.8 263,950	\$	4.7 1,540,758	\$	32.2 10,574,841	\$	39.2 12,875,843
% Total Agricultural Regional Production Value.....		15.2		36.4		58.3		26.0
		1.67		4.07		17.35		47.63
% of total B.C. production value.....								
Total value agricultural production.....	\$	1,736,894	\$	4,233,548	\$	18,126,047	\$	49,592,939

D

BRITISH COLUMBIA (1954)

REGION 5 Vancouver Island	REGION 6 Kamloops	REGION 7 Cariboo	REGION 9 Central B.C.	REGION 10 Peace River	TOTALS
0.8 \$ 26,138 6.8 327,226 16.36 1,535,854 30.0 1,207,800 38.3 0.6 1.2	17.2 \$ 83,704 3.2 15,445 2.93 275,408 56.5 2.21 9,100 10.0 100,000 0.8 4,000	\$ 2.25 89.4 211,440 10.57 25,000	0.5 \$ 1,292 0.03 1,554 2.07 6,694 2.4 2.5 111,500 40.5 12.0 120,000 4.8 34,000 12.36 275,040	70.0 92.3 3,073,750 36.8 260,300 10.2 3,334,050	26.0 \$ 8,455,564 14.7 4,776,860 29.0 9,385,263 12.4 4,026,000 12.4 4,388,650 3.1 1,002,500 2.2 707,660 100% \$32,742,497
\$ 3,153,819	\$ 487,657	\$ 236,440	\$ 275,040	\$ 3,334,050	\$32,742,497
30.7	9.0	3.4	13.5	53.8	31.3

"B" AND "D"

10.0 \$ 7,109,086 69.3 9.6 \$ 3,153,918 30.7	6.9 \$ 4,932,197 91.0 1.5 \$ 487,657 9.0	9.5 \$ 6,759,015 96.6 .7 \$ 236,440 3.4	2.5 \$ 1,766,968 86.5 .8 \$ 275,040 13.5	3.3 \$ 2,360,059 46.2 10.2 \$ 3,334,050 53.8	\$71,362,361 68.7 100% \$32,742,497 31.3
9.86	5.21	6.72	1.96	5.47	99.94%
\$10,263,004	\$ 5,420,854	\$ 6,995,455	\$2,042,008	\$ 5,649,109	\$104,104,858

APPENDIX I

RELATIVE VALUE OF LIVESTOCK & CROP PRODUCTION BY REGIONS

(approx. \$000's)

REGION I		REGION II		REGION III	
<i>East Kootenay</i>		<i>West Kootenay</i>		<i>Okanagan</i>	
Beef.....	637	Dairy.....	1,411	Tree fruit.....	7,766
Dairy.....	597	Poultry.....	875	Dairy.....	2,528
Veg. & pot.....	211	Grain.....	460	Poultry.....	2,326
Poultry.....	192	Tree fruit.....	396	Beef.....	2,205
Forage.....	50	Beef.....	315	Veg. & pot.....	1,743
Swine.....	37	Small fruit.....	207	Grain.....	500
Sheep.....	9	Seed.....	195	Swine.....	377
Seed.....	1.6	Veg. & pot.....	157	Spec. hort.....	201
Grain.....	1.3	Forage.....	125	Small fruit.....	155
		Swine.....	86	Seed.....	115
		Sheep.....	4	Sheep.....	114
				Forage.....	95
REGION IV		REGION V		REGION VI	
<i>Lower Fraser Valley</i>		<i>Vancouver Island</i>		<i>Kamloops</i>	
Dairy.....	20,720	Dairy.....	3,767	Beef.....	3,685
Poultry.....	15,152	Poultry.....	2,883	Dairy.....	287
Veg. & pot.....	5,245	Veg. & pot.....	1,536	Poultry.....	488
Small fruit.....	4,071	Spec. hort.....	1,208	Swine.....	282
Spec. hort.....	2,617	Small fruit.....	327	Veg. & pot.....	275
Swine.....	519	Swine.....	252	Sheep.....	192
Forage.....	450	Beef.....	120	Forage.....	100
Beef.....	284	Sheep.....	86	Tree fruit.....	84
Grain.....	213	Forage.....	37	Small fruit.....	15
Tree fruit.....	182	Tree fruit.....	26	Grain.....	9
Seed.....	98	Grain.....	19	Seed.....	4
Sheep.....	41				
REGION VII		REGION IX		REGION X	
<i>Cariboo</i>		<i>Central Interior</i>		<i>Peace River</i>	
Beef.....	5,403	Beef.....	748	Grain.....	3,074
Poultry.....	725	Dairy.....	992	Beef.....	673
Dairy.....	402	Forage.....	120	Dairy.....	405
Veg. & pot.....	211	Grain.....	111	Swine.....	795
Swine.....	171	Seed.....	34	Poultry.....	477
Sheep.....	58	Poultry.....	21	Seed.....	260
Forage.....	25	Veg. & pot.....	7	Sheep.....	10
		Swine.....	3		
		Small fruit.....	2		
		Sheep.....	2		
		Tree fruit.....	1		

APPENDIX J

RELATIONSHIP OF SIZE TO INCOME, 236 OKANAGAN FRUIT FARMS, 1956

Acreage Group	Average Cash Income	A.C.I. less Depreciation	Average Addition Perquisites	Average Return Farm Operation	Average Claimed, Operator and Family Labour	Average Available Interest on Investments
	\$	\$	\$	\$	\$	\$
0-2.4.....	32	-237	420	183	553	- 370
2.5-4.9.....	672	251	689	940	958	- 18
5.0-7.4.....	714	202	759	961	1,400	- 439
7.5-9.9.....	1,312	773	700	1,473	1,714	- 241
10.0-12.4.....	1,905	1,217	687	1,904	1,861	43
12.5-14.9.....	1,238	376	933	1,309	2,133	- 824
15.0-19.9.....	2,156	1,113	700	1,813	2,190	- 377
20.0-24.9.....	2,608	1,252	924	2,176	2,482	- 306
25.0-39.9.....	3,183	1,478	706	2,184	2,658	- 474
40.0-and over.....	3,423	654	1,009	1,663	3,166	-1,503

SOURCE: ECONOMICS DIVISION
CANADA DEPARTMENT OF AGRICULTURE
OTTAWA.

APPENDIX K

ABSTRACTS FROM SOME FARM STUDIES IN BRITISH COLUMBIA

	Capital	Current Receipts	Current Expenses	Operators Labour Income	Cultivated Acreage	Number of Cows
LOWER FRASER VALLEY						
Dairy Farm Study.....Ave.	43,000	11,000	6,500	1,248	59	26
1954.....High	50,000	14,000	7,500	3,500	78	31
65 farms.....Low	42,000	9,000	5,600	-600	51	23
VANCOUVER ISLAND						
Dairy Farm Study.....Ave.	35,000	10,000	7,600	1,230	51	19
1954-55.....High				3,200		26
29 farms.....Low				-752		17
CENTRAL B.C.						
Farm Business Study...Ave.	19,800	2,800	1,800	471	28	
1953-55.....High	27	6,900	4,400	1,452	35	
176 farms.....Low	(dairy av.) 14 (subsist.)	469	852	-570	26	

SOURCE: ECONOMICS DIVISION
CANADA DEPARTMENT OF AGRICULTURE.

2nd Session, 24th Parliament, 1959
THE SENATE OF CANADA

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PROCEEDINGS
OF THE
SPECIAL COMMITTEE OF THE SENATE
ON
LAND USE IN CANADA

No. 10

THURSDAY, JUNE 11, 1959

The Honourable Arthur M. Pearson, Chairman
The Honourable Henri C. Bois, Deputy Chairman

WITNESSES:

All from the Department of Agriculture and Conservation, Province of Manitoba:—The Honourable Errick F. Willis, Minister; Messrs. L. B. Kristjanson, Extension Economist and Jack Parker, Director, Soils and Crops Branch.

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Power
Basha	Horner	Smith (<i>Kamloops</i>)
Bois	Inman	Stambaugh
Boucher	Leger	Taylor (<i>Norfolk</i>)
Bradette	Leonard	Taylor (<i>Westmorland</i>)
Buchanan	MacDonald	Turgeon
Cameron	McDonald	Vaillancourt
Crerar	McGrand	Wall
Emerson	Methot	White—31.
Gladstone	Molson	
Golding	Pearson	

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator MacDonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—

Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

THURSDAY, June 11, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 10.30 A.M.

Present: The Honourable Senators: Bois, Deputy Chairman; Basha, Boucher, Cameron, Gladstone, Golding, Higgins, Horner, Inman, MacDonald, McGrand, Smith (*Kamloops*), Stambaugh and Turgeon.—14.

The Official Reporters of the Senate were in attendance.

The Committee proceeded to the further consideration of the order of reference of Tuesday, February 17, 1959.

The following witnesses from the Department of Agriculture and Conservation, Province of Manitoba, were heard:—

The Honourable Errick F. Willis, Minister, Messrs. L. B. Kristjanson, Extension Economist, and Jack Parker, Director, Soils and Crops Branch.

At 12.30 P.M. the Committee adjourned to the call of the Chairman.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, Thursday, June 11, 1959.

The Special Committee on land use in Canada met this day at 10.30 a.m.
Senator Henri C. Bois in the Chair.

The DEPUTY CHAIRMAN: Since we have a quorum we will start right away.

We have with us today a delegation from the province of Manitoba. This delegation is headed by the honourable Minister of Agriculture, Mr. Errick F. Willis. He is accompanied by Mr. Burbank Kristjanson, who is an economist. He is also accompanied by Mr. Jack Parker who is Director of the Soils and Crops branch of the Department of Agriculture of Manitoba. It goes without saying, gentlemen, that you are most welcome here today, and I express these words with an assurance that I am just saying what every member of this committee feels.

I have explained briefly to the honourable minister our usual procedure here. I think we are all agreed that he will be permitted to read his brief without interruption and then stand ready to answer any questions members of the committee may wish to ask him.

The Honourable Errick F. Willis, Minister of Agriculture and Conservation, Province of Manitoba:

Mr. Chairman and Honourable Senators.

May I take this opportunity to congratulate the Committee on its decision to study the small farm problem in Canada and its effect on land use. May I also express my appreciation on behalf of the Province of Manitoba for the opportunity of presenting a Brief to this Committee on the small farm problem.

This Brief will deal more particularly with the economic aspects of the small farm problem. I would like, also, to present to this Committee, for its study, a typed copy of a report made by the Manitoba Land-Use Committee entitled "Lands, Land-Use and Land-Use Problems; and Management, Control and Conservation of Soils, Surface Waters, Forests and Wild-Life In Manitoba." This latter report deals in detail with the broad problem of land-use.

Development of Manitoba's Agriculture

I would like to trace briefly the developments of Manitoba's agriculture.

The use of land for agricultural purposes was introduced into Manitoba during the fur trade regime. Although the fur trade appeared to be antagonistic to agriculture, it was the provisioning of the trading posts and fur transport brigades which ultimately led to the introduction of agriculture in this Province. The fur trade also was largely responsible for founding the first agricultural colony on the Red River Plain.

The type of agricultural land-use followed under the Red River Settlement regime (which lasted for approximately 60 years) was a self-contained, simple pioneer form of subsistence. The development of agriculture in the prairie and aspen grove region began in the late 1860's and gathered momentum following the establishment of the Province in 1870 and the initiation of the Dominion Government Homestead Policy in 1872. The discovery that high-grade milling wheat could be produced in the prairie region with relatively little effort was responsible for the rapid development of grain growing as a commercial enterprise on prairie farms.

A peak in grain acreage was reached on Manitoba farms in 1921. By this time the best of the natural grassland areas in the Province had been occupied. The difficulties of clearing and breaking tree covered lands of the aspen grove and forest regions had a retarding effect on the expansion of agriculture. The general economic depression in the late 1920's and the severe drought years of the 1930's caused a reduction of over a million acres in total cultivated land by 1943. The total cultivated acreage again increased under the stimulated production of World War II and the introduction of power equipment for breaking and clearing treed areas.

Manitoba Crops

The grain crops grown in Manitoba are chiefly wheat, barley, and oats, with lesser acreages of flax and rye. The acreage of each of these grains has varied from time to time. The percentage of the total grain acreage sown to wheat fell from 68.3 percent in 1901 to 32.6 percent in 1956; barley on the other hand, increased from a low of 7.4 percent in 1901 to 32.3 percent in 1956. Oats fluctuated during the same period between levels of 31.5 and 23 percent to a 1956 level of 24.4 percent.

Intertilled and miscellaneous crops, while important, do not constitute a major part of Manitoba's agriculture. The soil improvement crops, grasses, clovers and alfalfa, until recently have not been used extensively. However, through the efforts of the Manitoba Department of Agriculture, the interest in these crops has shown a marked increase.

Livestock

Substantial numbers of livestock are kept on many farms. It is worthy of note that approximately 45 percent of the 1958 farm income was derived from the sale of livestock and livestock products. Manitoba farms average 18 animal units per farm or 9 animal units per hundred acres of cultivated land. The acreage of cultivated grasses and legumes per animal unit increased from just over half an acre in 1941 to almost an acre in 1956. Consequently, a larger portion of forage and pasture consumed by Manitoba livestock, with local exceptions, is provided by native hay and pasture on the unbroken farm land. Moreover, considerable numbers of cattle are produced on crown grasslands held under lease or permit.

Types of Land-Use

The cultivated land has been largely under a fallow-grain system of land-use. However, a varying amount of diversification is practiced. The types of land-use on Manitoba farms can be classified as:

- (a) Commercial grain growing;
- (b) Commercial grain growing with livestock;
- (c) Commercial livestock;
- (d) Farms producing special crops such as potatoes, sugar beets, and sun-flowers.

The Nature of the Small Farm Problem in Manitoba

With this background information I now turn to a discussion of the nature of the small farm problem in Manitoba.

Increased mechanization of Manitoba farms during the early post war years was little short of phenomenal. The combination of good crops and a relatively favourable cost-price relationship made it possible for most farms in Manitoba to acquire considerable amounts of machinery during these years. In 1946, the total value of machinery on Manitoba farms was just over 94 million dollars; by 1951 this had increased to almost 232 million dollars, and has since continued to rise. However, the increase in farm size did not parallel the increased investment in mechanical equipment. The years since 1953 have been much less favourable to the expansion of agricultural units. The prices that farmers have received for their products, particularly grains, have been decreasing steadily, while the prices which these farmers must pay for the necessary equipment and supplies have been increasing. Between 1951 and 1958, the index of prices received by farmers dropped from 296.8 to 231.0. During this same period, the index of prices paid by farmers rose from 230.0 to 255.8. The outstanding exception to this has been the cattle market during the last few years. It is, however, becoming increasingly difficult for a farmer with limited resources to increase the size of his business to a sound economic unit.

The small farm problem traces back to the original settlement policies of the Federal Government. The original homesteads were 160 acres in size (with the exception of 1.4 million acres distributed under the Half-Breed Scrip in parcels of 240 acres) regardless of the type of land or climatic conditions. This proved to be on the whole satisfactory under conditions of a subsistence economy where a very small proportion of the total output of a farm was sold as a cash crop. As commercialization has increased in agricultural production, it has become more and more difficult for many of the farmers on small farms to maintain an acceptable standard of living. The patterns established by the original homestead policy, and latterly perpetuated by the Soldier Settlement Scheme of the post World War I era, are difficult to erase. Problems exist today mainly in the areas where settlers were permitted to settle on land unsuitable for grain production. These areas include land which is stoney, sandy, marshy, and cut-over woodlands. We contend that farms both in respect to size and land-use must bear very definite relationship to the economic conditions and environment of the area in which they are located.

While reliable statistics are not available regarding the proportion of Manitoba's farms which are considered uneconomic, we estimate that it is between $\frac{1}{4}$ and $\frac{1}{3}$ of the 49,000 farms in the Province. These uneconomic farm units are scattered throughout the Province but there are three major concentrations:

South-East Region

This first area is in the southeast corner of the Province east of the Red River Plain and extending to the Ontario Boundary. The eastern portion of this area was originally settled by people who were primarily interested in the forest resources on the land. As the forests on private holdings and adjacent crown lands have become depleted, these people have become increasingly dependent on agricultural production for their livelihood. The farmers who settled in the transitional area between the Red River Plain and the forest region, as well as the people in the forest region, have in the past supplemented their income with winter work in the wood and pulp industry. Latterly, however, the annual cut of wood has been restricted and it has

become increasingly difficult for the people on these small, poorly developed farms to meet their day-to-day needs. Thus, the farm operators in this area who in the past have had an outside source of income are finding it necessary to depend almost entirely on the income from their farming operations.

The land in the area is probably best suited to dairy production. However, the recent developments in fluid milk production indicate that the Winnipeg market can be supplied in the areas more adjacent to the city, and there would be great difficulty in finding markets if these people were to turn to dairying. In addition, the present unfavourable situation in the butter and milk powder markets is likely to continue for some time. An alternative is beef and sheep production. But the units are too small in this case to allow for efficient production of beef cattle. To allow development of this type of agriculture in the cut-over areas in the southeast it will be necessary to displace many of the families living on these small units. In many cases the land in this area can be developed to produce feed-grain and forage. This development, however, requires some additional land clearing and breaking which is too costly for the low income farmer to carry out. Credit facilities, such as the Farm Improvement Loan Act, have not been adequate for such projects.

Inter-Lake Region

The second area which is largely composed of uneconomic units lies between Lakes Winnipeg and Manitoba and constitutes roughly the northern two-thirds of this region. Much of this area consists of very stoney or rocky land which is not well suited to grain production. Here again production of livestock is much more suitable. While some of Manitoba's largest commercial herds are in fact in this area, most units are too small to allow any one operator to produce a large enough number of animals to provide a suitable standard of living. The original settlers settled on the shores of these two lakes and received the bulk of their income from fishing. Farming was a secondary occupation with them to provide meat, milk and vegetables for their families and feed for their draught animals. Recent necessary restrictions on fishing, particularly on Lake Winnipeg, will result in a greater dependence on income from the farm land which in turn will prove difficult for these people. To change the land-use pattern would require the displacement of many of the people now settled there.

West Lake Region

The third area consists of a strip of land between the Manitoba Escarpment and the west shores of Lakes Manitoba and Winnipegosis. This land is also better suited to livestock production and similar policies would be necessary as in the other two areas to facilitate the change to a ranch type of agriculture.

Other Areas

Scattered throughout the Province are many farmers who are caught in the squeeze of the adjustments taking place. Many of these farms have until recently provided the family with a fair standard of living. They now are faced with the necessity of either increasing their farm operation or selling to their neighbors. Those that must move face drastic adjustments in their way of life for which many are not prepared.

The Reasons for the Persistence of the Problem

This Committee has set as one of its terms of reference the reasons for the persistence of the small farm problem. I assure you Mr. Chairman and

Honourable Senators, that our Government has devoted considerable thought to this very point. Indeed, we have instituted and will institute several policies in an attempt to alleviate the situation.

The agricultural revolution which has occurred, particularly in the last decade, with its consequent high capital investment made inevitable the disappearance of subsistence farming in Manitoba.

The small size of farm holding is a major deterrent to improved farm methods, reduction of production costs and in particular the efficient use of modern machinery. Truck garden farms, normally of relatively small acreages, with intensive production and small farms upon which specialized enterprises are conducted are the exceptions.

The most often stated reason for the persistence of the problem is the lack of credit facilities for agriculture. This undoubtedly is a major factor and our Government has recently provided a comprehensive credit policy for Manitoba farmers. I will deal with this more fully a little later. But this is only a part of the problem. As I mentioned earlier, the land-use or Land Settlement pattern which was established early in the history of the Province is difficult to change. The relatively unfavourable cost-price relationship which has existed in recent years has made it more difficult for farmers to expand their operations and to adjust to changing conditions.

Young people in these marginal areas undoubtedly have had less adequate educational facilities than have those of the more prosperous parts of the Province. In this regard, Manitoba has recently instituted a system of large school districts. This will make it possible to provide more equitable educational facilities for the young people in the smaller communities.

In some areas, most of the young people are leaving the farm but the parents are remaining. Many of these people are reluctant to leave because they feel that they have insufficient qualifications for employment other than farming. This indicates a general lack of information concerning alternative opportunities for these people in other types of endeavour. There is a failure to make best use of information and opportunity for vocational training to facilitate the movement.

Suggestions for Improving the Situation

Much is being said and written on the plight of present-day farming and concern expressed as to where it may be heading. Especially is this true of the impact of integration and contracts as they already are affecting certain phases of farm business. We are all conscious of the profound changes farming is undergoing. This is mainly an effort on the part of operators to keep pace with the times and to effect greater efficiency in farm operations.

There are certain phases of the farm industry which require special attention. A few of the more urgent policy requirements may be mentioned.

Agricultural Stabilization Act—So long as this Legislation does not create incentive prices and bring about unmanageable surpluses, I am convinced that it will, under stress of circumstances, make an increasingly important contribution to Canadian agriculture. I am in favour of measures which provide a degree of protection to farm income and that will improve the farmers' position in the Canadian economy.

Agricultural Credit Act—Long term credit to enable farmers to adjust and expand farm operations under present-day conditions is of utmost importance. At a special session of the Manitoba Legislature in November of 1958 we passed the Agricultural Credit Act, which we are confident will go far to provide this needed credit, especially for young farmers. Since the

inauguration of this program, we have been deluged with applications for credit and most of these have been from operators who are making legitimate, sound requests. The appraisers are now in field making appraisals and loans are now being made.

Crop Insurance—Probably the greatest single hazard in farming in the prairie region is the variability of crop yields. This markedly affects farm income. In recent years crop insurance has been receiving increased attention as a means of offsetting this situation. We as a Government are convinced that a national system of crop insurance is not only necessary, but is possible, and should receive prompt attention with a view to early implementation. On this matter our Government is now in the process of writing Crop Insurance Legislation which go into effect at the earliest possible time.

Education and Vocational Training—The steady movement from farms to other segments of the economy—since 1941 this has averaged in Manitoba almost 3,000 persons annually—must receive greater consideration. Most of these people are moving for economic reasons and in the main, would appear to be from uneconomic units. Moreover, the majority of these people are inadequately trained for their new vocations. It is therefore significant that the Prime Minister of Canada in outlining the future agricultural policy said in part "...as a means of meeting the small farm problem the Government has under consideration ways and means for improving the level of living for farmers on small farms by means of better land-use, encouraging the formation of economic family farm units, improving technical training, extending unemployment insurance benefits of certain classes of farm workers and by extending the vocational and technical training agreement for the benefit of those who wish to enter new occupations".

Our Government believes that it is extremely important to the orderly development of agriculture, and indeed the economy as a whole, to provide training for those who will leave agriculture and enter industry and other vocations. Manitoba has already moved to facilitate the education of young men planning careers in agriculture through a plan bursaries. This policy, now in its second year of operation, is assisting 74 young men enrolled in the degree courses in agriculture at our University to the amount of \$44,000.00. Furthermore, we have arranged aid of similar character for 43 young farmers enrolled in a 2-year diploma course to the amount of \$9,000. This latter group will return to farms in Manitoba where they will make their contribution to practical agriculture and to the nation as a whole.

In my opinion, it is now important that a joint federal-provincial policy of educational aid to farm youth be accelerated, particularly for those leaving the farm. Such a program will make a valuable contribution to the alleviation of problems arising from a changing agriculture.

Research Needs—Much of the recent progress in many fields of agriculture traces directly to painstaking research on the part of trained workers in this and other countries. In my opinion monies directed to research are an investment of the highest order. We in Manitoba are supporting a very progressive agricultural research program at our University.

Perhaps the most obvious need for research is the problem this Committee is now studying. The 1958 Farm Income and Expenditure Survey carried out by the Bureau of Statistics will provide information which will be helpful in delineating the Small Farm Problem more specifically. It is important that the nature and extent of this problem be determined so that appropriate action can be taken.

There is no doubt of the extreme complexity of the problem; and the danger of taking action which might only perpetuate the causes of the trouble

is ample reason for basic and exhaustive study. It must be studied without any preconceived ideas as to the superiority of any particular plan or scheme.

Most of the agricultural research done to date has been directed to increasing the efficiency of production—improved varieties, breeds, and production techniques. The success of this research is now being felt in the changes taking place in agriculture.

Marketing research however has not kept pace with these developments. Therefore, it is now necessary to concentrate on finding new and better markets for the products which our farmers produce so efficiently.

Considerable success has been achieved in certain areas of the United States in respect of zoning agricultural land for its best use. Research should be undertaken to determine to what extent land-use planning can be employed in Canada.

In Manitoba, there are relatively few industries in areas other than the larger urban centers. It would, I believe, be worthwhile to investigate co-operatively the possibilities of establishing industries in more of the rural centers. This would involve a study of such factors as labor supply and freight rates.

Agricultural surpluses have been and will likely continue to be a major problem. Therefore Canada should give greater consideration to research in the direction of finding alternative uses for some of our major agricultural products.

Advisory Services—Never in the history of agriculture has there been a greater demand or a greater need for agricultural services. Undoubtedly, every Department of Agriculture in Canada is experiencing this situation. This condition is a healthy and challenging one, deserving of careful thought and implementation of adequate policies to meet present day modern agriculture. In my opinion it requires the combined resources of and coordinated action by both federal and provincial governments.

Conservation—The conservation of our land and water resources is of utmost importance, as they are basic to sustained agricultural production. To this end the Manitoba Department of Agriculture is adding a new branch which will be concerned with the conservation and development of Manitoba's water resources and the conservation of our land. Although natural resources are under provincial jurisdiction, I would urge early consideration of how Federal-Provincial cooperation in the conservation of our natural resources may be implemented.

We in Manitoba commend and appreciate the excellent work already done by the Federal Government. P.F.R.A. funds spent in Manitoba from 1935 through 1958 amount to more than five and one-half million dollars, and P.F.A.A. disbursements to Manitoba farmers from 1939 through 1958 approximate thirteen and one-half million dollars. The Canadian Farm Loan Board also has assisted many farmers to make needed adjustments in their farming operations. However, while these policies have been valuable, they should be reconsidered in light of present-day needs. Moreover, clarification is needed in respect of future agricultural policy proposed by the Prime Minister to which I have referred.

Farm Management—The high capitalization on farms and the need for and use of credit suggest the need of greater emphasis upon farm management. The demand for farm management assistance has been increasing very rapidly in recent years. My Department has instituted a program of farm management education the progress of which is gratifying; and although in its first year of operation, indications are that it will develop rapidly throughout the Province.

This program consists of a four-year course for operating farmers involving the various aspects of the management of the farm. These farmers will get training in farm accounting and farm management generally and also will get specific training in machinery and building management, soil and crop management, and livestock management. We are confident that these farmers will have a better grasp of good business and cultural practices after they have completed this program of study.

Rural Sociology:

The sociological aspects of the adjustments taking place in Manitoba's Agriculture are being given consideration by our Government. Beginning on July 1st of this year a sociologist will be employed to study the problem areas with a view to determining corrective programs.

Summary:

We recommend that action be taken by both Provincial and Federal Governments to assist in the orderly development of Canada's Agriculture. The small farm problem persists for the following reasons:

- 1) improper land-use, particularly on land submarginal for grain production
- 2) lack of adequate capital and long-term credit
- 3) original settlement policies
- 4) the cost-price squeeze
- 5) inadequate educational opportunities for rural young people
- 6) lack of information about alternative employment opportunities
- 7) lack of farm management and planning service

Research Needs

- 1) intensive research into rural reorganization and adjustment needed in problem areas
- 2) increased marketing research
- 3) research into the industrial development potential of rural areas
- 4) research into alternate uses for agricultural products
- 5) research into the migration of rural people to urban centers
- 6) research into the application of rural zoning in Canada

Recommendations

- 1) continued price support legislation as warranted by developments within the industry
 - 2) improvement and consolidation of long-term credit facilities
 - 3) crop insurance legislation
 - 4) improved training facilities for farm youth; those leaving agriculture as well as those remaining on the farm
 - 5) increased research in the fields indicated
 - 6) increased advisory service facilities for farm operators
 - 7) more complete information regarding employment possibilities alternative to agriculture
- and finally, (8) federal cooperation, through grants-in-aid to assist the Provinces to implement these essential programs

Conclusion

Mr. Chairman and Honourable Senators, you will appreciate that the Government of Manitoba is acutely aware of the adjustments taking place in agriculture and is equally aware of the necessity of assisting the development of the agricultural industry in Manitoba. There is such urgency in this particular field, I believe it is in the national interest for the Federal Government to assist the Provinces, in the form of grants-in-aid, to carry out the programs necessary for agricultural adjustment. Although the Natural Resources are under Provincial jurisdiction, the development of our agriculture and the conservation of our land and water resources for future generations is of sufficient importance to warrant early action by the Federal Government.

I should like to extend an invitation to your Committee or a subcommittee thereof to visit our Province and investigate the situation personally. May I once again thank you for this opportunity of appearing before you to express my views and the views of our Government on land-use and specifically the small farm problem.

The CHAIRMAN: Thank you very much, sir. If you do not have anything to add, we will proceed now with the questioning period.

Senator MACDONALD: When you speak of the small farm, I assume you refer to the farm of 100 acres?

Hon. Mr. WILLIS: Yes, and smaller.

Senator MACDONALD: What would you suggest as sufficient acreage, since Canada is practically mechanized now, to make a good economic unit?

Hon. Mr. WILLIS: In Manitoba, and for the Manitoba situation, three-quarters of a section; 480 acres as a minimum.

Senator HORNER: Unless you are in sugar beets, or something of that nature.

Hon. Mr. WILLIS: Yes, specialized crops, of which there are some in Manitoba.

Senator MACDONALD: I notice that back in my own little province of Prince Edward Island there is a tremendous number of farmers seeking employment in the towns, and so forth, to implement their farm income. Have you much of that in Manitoba?

Hon. Mr. WILLIS: We do not have nearly as much as in your province, because that employment cannot be obtained; the distances are too great, and the centres not large. In Manitoba, outside of the city of Winnipeg, we do not have any large centres where much employment would be available at all. Those who are close to the city of Winnipeg get a great deal of that employment, but I should say not to a large extent any place else.

Senator INMAN: We do not have very large centres in Prince Edward Island.

Hon. Mr. WILLIS: I think you have more industries in that way in your smaller centres than we have; but there is some employment in places like Brandon, which has a population of 25,000, but in the smaller towns there is not much employment to be found in wintertime.

Senator CAMERON: You mentioned that three thousand people are leaving the land to go into urban occupations each year. Are those three thousand individuals of the working force, or three thousand farmers?

Hon. Mr. WILLIS: Three thousand persons.

Senator CAMERON: Have you any idea how many farms are given up each year?

Hon. Mr. WILLIS: We haven't got a figure on that, but it is considerable, and all of those three thousand are from the farms.

Senator McGRAND: What is the opportunity for industry to absorb the people from the land that you suggest may leave it? For instance, on page 8 of your brief you mention "lack of information about alternative employment opportunities." I presume you mean some opportunity in industry. Then on page 9 under "Research Needs", you mention "research into the migration of rural people to urban centres." Again, on the same page, you speak of "more complete information regarding employment possibilities alternative to agriculture." Now, seeing from your brief that you have such a large migration of people from the land into industry, what is the opportunity over a period of years that you think industry would absorb this population from the farms that are not necessary to maintain food production?

Hon. Mr. WILLIS: In our province, the city of Winnipeg, as you probably know, is about half of the population of Manitoba. Industry has been increasing greatly within the city. As you know, people who have been brought up on the farm are very handy, much more so than city folk, because on the farm you have to work at about a dozen occupations. Consequently, if the information were brought to those people in regard to possible employment in the city in new industries, of which there are many, we think they would get that employment; we think also their employers would be well pleased to have that work for them rather than for some of the city folk who have just come off the streets of the city. We think there is opportunity there if the information were brought to the boys on the farm.

Senator McGRAND: What is the unemployment situation in Winnipeg, and in Manitoba generally, at the present time?

Hon. Mr. WILLIS: It is not serious. We always have an unemployment problem in the wintertime, just seasonal, but it is about normal I should say now.

Senator McGRAND: What is the percentage of unemployed?

Hon. Mr. WILLIS: It is not unusual, nor large. It has been much more previously in other years.

Senator HORNER: As Stephen Leacock said, "Lord help me, but I know the answer to part of the problem". However, from my own experience on the farm, I can tell you why the people leave the farm for the city. The eight hour day and the five day week has done more to attract these young people to the city from the farms than anything else.

Senator CAMERON: In connection with this need to re-train people who are leaving the farms, this is a universal problem across Canada. What programmes or institutions have been set up in Manitoba for the purpose of giving this re-training up to the present time?

Hon. Mr. WILLIS: We have the Manitoba Technical Institute which trains a large number each year within the city of Winnipeg, which has been very successful; and we are now contemplating a bigger and better technical institute for that purpose, because many farm boys and girls have come in to get training for jobs.

Senator CAMERON: Well, I understand farm boys and girls are mainly between age 17 and 25?

Hon. Mr. WILLIS: I think so.

Senator CAMERON: But what about the displaced farmer who is 35 or 40 years of age who needs re-training. Is anything done for that person?

Hon. Mr. WILLIS: There is, and it is available there; but I must say that is a much more difficult problem. We have been very successful with those who are younger, but our progress has not been as great with the older people.

Senator McGRAND: You mentioned that these people on the farm have been trained to do half a dozen different jobs and are easy to train to do work in industries in the city. I wonder, under those circumstances, what is going to be the outlook for these people who come off the street. If they are not trained and have no opportunities for employment, we are going to have a permanent unemployed group of people coming off the street, and the possibilities of jobs are going to be taken by people who leave the land. That is common across Canada.

Hon. Mr. WILLIS: Quite. We have an expanding economy, and also an expanding population, which I think will work together in that regard.

Senator McGRAND: That will absorb both?

Hon. Mr. WILLIS: Yes; we will be able to handle both. But I was saying that because they were brought up on the farm that does not say they cannot go to the city and fit in, because on the farm you have to be a mechanic, you have to be a bookkeeper, and have to do a dozen other jobs, and therefore those people from the farms are adaptable, and in competition with those who come from the city their chances are very, very good.

Senator CAMERON: You mentioned appointing a sociologist to study the rural population. Where will he be placed, in your department of education, in the extension services, or in the university?

Hon. Mr. WILLIS: He is placed in our Department of Agriculture. I think maybe I should have Mr. Kristjanson say a word about that, because the sociologist whom we have employed happens to be his brother, so he can speak on behalf of the family.

Mr. KRISTJANSON: Well, the plan is to put him in the southeast area, place him right in the southeast area of the province to study problems peculiar to that area, to start with, at least. In co-operation with other departments in the Government and indeed the people in the area, try to re-organize the economy of that sector to make better use of the human and actual resources within the area.

Senator CAMERON: He would work closely with the extension service?

Mr. KRISTJANSON: Yes, he will be a representative of the extension service.

Senator CAMERON: What, if any, connection is there between that work and the work that might be done through the faculty of agriculture at the university?

Mr. KRISTJANSON: There is extremely close liaison between the faculty of the university and our department. We are working together all the time. It is more or less like one unit.

Hon. Mr. WILLIS: May I interrupt to say that we have employed one man whose job is that and that only, a liaison man working for the Department of Agriculture who spends his time at the university getting all the latest information so that he may hand that on particularly to the agricultural representatives who carry on their courses in the country, which I have outlined, on a 12-month basis.

Mr. STUTT: Mr. Kristjanson, is there any particular reason why you selected the southeast area first? Is that the most critical?

Mr. KRISTJANSON: Yes and no. It has the most peculiar set of conditions. The cut-over areas require conservation measures. The land is not being used properly and this area was chosen I suppose you could say because it is the most immediately critical situation.

Mr. STUTT: But the solutions there might not apply in other areas.

Mr. KRISTJANSON: No. The solutions may or may not apply in that area and the sociologist will have to move to other areas in time. For the moment though he will be concentrating on the southeast corner of the province.

Senator McGRAND: Do you consider that there is going to be a further migration from the farm to other employment?

Mr. KRISTJANSON: Oh, yes, I think that this will continue for some time yet. The problem is to try to make the transition as easy as possible for the people that are affected or as was mentioned in the brief a study of the alternatives such as industrializing rural areas to keep people on the farm might be investigated. Very little investigation has been done on this.

Senator McGRAND: You mean to prevent the transition?

Mr. KRISTJANSON: To prevent the transition. There will be some transition but it will be less and it may or may not be desirable to assist in that.

Hon. Mr. WILLIS: It should be made less painful.

Senator HORNER: Mr. Chairman, I am concerned about the discussion that has taken place with regard to subsistence living on farms. I would be uneasy if anyone were making a living and raising a family on a farm to say anything that might lead him to become dissatisfied with his lot. In my long experience I found a peculiar situation, that city men earning the highest salaries are living on what is called a subsistence level, and in many many cases they live at a lower level than perhaps your farmer lives. And this is peculiar, that very often a man earning a higher salary has more difficulty in meeting his obligations as compared to a man working for a lower salary. So a great many people in Canada, apart from the farmer, are living on what you might term a subsistence level, but to my mind the farmer has many advantages that a city man on a salary does not have. In any event, I would not hesitate to displace anyone living on a farm now who is able to get along at all.

Senator INMAN: Mr. Chairman, what inducements are offered to people to stay on the farms? What I am concerned with is people leaving the farms.

Hon. Mr. WILLIS: We are doing a great deal now to try to keep the farmer on the farm. Recently we have been providing agricultural credit where it is thought necessary. In rural areas we now have provincial hydro which goes to about 85 per cent of the farms in Manitoba. That again I think is helpful. We are spending an increasing amount every year on rural roads to keep the farmers there, and when you look at that situation today the city does not have too much that the farm does not also have. On the farm they now have television, radios, electricity, we ride on rubber, and it is not nearly the toil which it used to be. This should be an inducement to stay on the farm. We think in many cases that they should stay as long as they can make a living on it, and I agree with Senator Horner that many people in the city have a take-home pay which is probably less than what it is on the farm after your Government takes its slice.

Senator MacDonald (*Queens*): Mr. Chairman, down in my home, Prince Edward Island, we are interested in the beef business and of course we have to thank the United States at the present time for the fairly good prices that we obtain for it. Have you any idea just how long the Americans are going to be good enough to take our beef cattle from western Canada?

Hon. Mr. WILLIS: You are asking that question of an optimist who is in the beef business. We see good markets ahead for at least two or three years and we see no definite signs that it might be cut off then because the United States needs our beef and we can produce it cheaply. In the past we have gone to them for pure bred sires but today to a large degree they are coming to us to buy pure bred sires, and as you know the Calgary Bull Sale is the greatest sale

on the continent and they are coming to us in larger numbers. I live eight miles north of the boundary and I ship cattle into the United States and the buyers come into my yard with a truck and take them away, after paying for them!

Senator MACDONALD (*Queens*): Naturally.

Hon. Mr. WILLIS: I am therefore optimistic with regard to the future of the cattle business. We have not got a surplus. In fact we have a shortage rather than a surplus, and the future is bright. You cannot look too far ahead. It is like politics. You cannot go too far into the future, but the present looks very good and there are not any big clouds in sight except that the United States might clamp down on imports. But we have other considerations with the United States. They have resources which they want to get from us. And in that regard I think it is very fortunate that there is in operation right now a committee composed of members of Parliament of Canada and members of the United States Congress, and that committee is doing an excellent job in regard to these matters. I think therefore that any downturn in the beef cattle business is unlikely because of that, because we will be able to sit down with them and talk with them man to man in regard to these problems that arise. After all the number and value of cattle going from Canada into the United States is relatively small compared to their needs, their consumption, and therefore it looks as if that trade may continue for some time into the future.

Senator HORNER: It means only about a day or two consumption in the United States.

Hon. Mr. WILLIS: Quite so.

Senator HORNER: But I might say, Mr. Willis, you have been trained as a lawyer, and you are farming because of your love of the occupation?

Hon. Mr. WILLIS: That is right. I have been farming since 1930. My father came to the area at Boissevain, which is south of Brandon, in the 1880's, and we have been farming the same farm for 60 years. We are optimists and we have no serious difficulties. We came through the drought of the 1930's as well, and we are still doing business at the same old stand, and I have sons who will probably be staying there on the farm.

Senator HORNER: You wish that they would stay on the farm?

Hon. Mr. WILLIS: Quite so.

Senator SMITH (*Kamloops*): To what extent has the P.F.R.A. program been directed to the elimination of the small holding or consolidation of farm land and the establishment of community pasture areas or the kind of thing that has been taking place in Saskatchewan and Alberta. Has that been able to take care of the small quarter-section?

Hon. Mr. WILLIS: My guess is, no, it has not done much in that regard. What it has done is that it has brought to Manitoba hundreds and hundreds of dug-outs where we have conserved water. They have also engaged in some other larger projects for the conservation of water for agricultural purposes which have been extremely useful, but in regard to this particular problem I do not think much has been done by them.

Senator HIGGINS: Have you much trouble with rain in Manitoba?

Hon. Mr. WILLIS: In the western part we always accept as much as possible gladly because we have a slight shortage there. We are close to the border of Senator Horner's province, Saskatchewan, and it is a little dry there.

Senator HIGGINS: What is the annual precipitation in Manitoba?

Hon. Mr. WILLIS: It varies.

Senator HIGGINS: What is the highest?

Hon. Mr. WILLIS: About 20 inches is the highest, and that will be for the whole season.

Senator HIGGINS: That includes snow and rain? And you allow 10 inches of snow for one inch of rain?

Hon. Mr. WILLIS: Yes.

Senator HIGGINS: You say you get only 20 inches in the whole year?

Mr. PARKER: That is right. We get considerable evaporation too.

Senator HIGGINS: Do you have any irrigation works there as they have in Saskatchewan?

Mr. PARKER: Very little, except for market gardens.

Senator HIGGINS: Have you many rivers in that area?

Mr. PARKER: We have a lot of rivers and lakes.

Senator HIGGINS: Do you use the lakes for irrigation?

Mr. PARKER: No, not for irrigation.

Senator HORNER: The difficulty there is that the area surrounding the important lakes gets the larger amount of moisture throughout the year, but where land is distant from those lakes it is pretty dry.

Mr. PARKER: That could become important in the future.

Senator HIGGINS: You mentioned Lake Winnipegosis.

Hon. Mr. WILLIS: Yes, Lake Winnipeg, that is 250 miles long. Lake Manitoba is the second largest. But for irrigation neither one of those are used.

Senator CAMERON: Mr. Chairman, we cannot take the example of Senator Horner as being in favour of keeping families on the farm. Senator Horner has been successful in having all his sons and nephews transmuted to the House of Commons.

Hon. Mr. WILLIS: And I understand he had a nephew here giving evidence some few weeks ago.

Senator HORNER: They would be better off on the farm.

Hon. Mr. WILLIS: Yes, and then he himself moved into the Senate.

Senator STAMBAUGH: Mr. Chairman, on the question of people working in the city. One of my sons and grandsons who moved to the city about three years ago and they tell me they never made so much money so easy while working so few hours than they do in the city. So it is not so tough in the city as Senator Horner would make us believe.

Hon. Mr. WILLIS: Many I have seen do very well.

Senator STAMBAUGH: I remember a few years ago I visited the aluminum plant in Kingston shortly after it started, and I saw working there mostly young men, very bright looking fellows and I said to the superintendent, "I presume most of these are university graduates working here?" To which he replied, "Oh no, these are young farmers; they are the boys we hire here."

Hon. Mr. WILLIS: Quite right.

Senator McGRAND: I think it is only optimism to say that it is extension of roads in the rural districts that is going to help there.

Senator STAMBAUGH: It does help, though.

Senator McGRAND: What happened to the migration of the people when hydro went in?

Hon. Mr. WILLIS: I would say to you, senator, that it is my belief that the migration was less on account of that, and if there had not been those things the migration would have been terrific.

Senator STAMBAUGH: I think so, too.

Senator HORNER: I agree.

Hon. Mr. WILLIS: Now I have two senators with me. That is my opinion.

Senator McGRAND: I would like to see statistics on that.

Hon. Mr. WILLIS: It is almost impossible to establish that with statistics.

Senator McGRAND: It has not stopped the trend in the Maritime provinces.

Hon. Mr. WILLIS: Well, of course, I am told that your greatest business there is exporting brains to the rest of Canada.

Senator HORNER: Well, he would not dispute that.

Senator MacDonald: I assume that in your province of Manitoba you have got pretty well scattered field representatives in the centres. Are the farmers taking advantage of their services?

Hon. Mr. WILLIS: Yes, they take great advantage of it. The whole province is covered. This year we had to put on about 50 per cent more than we had before, and still the demand is not met for agricultural representatives. Our agricultural representatives still do not have time to go and visit the farmer on the farm unless requested to do so; and, in my opinion, the farmers who need this help most largely are the ones who do not come to the agricultural representative. Therefore, I think he must in the future go to them. Even though they meet him with a shotgun, if he comes to them, I have suggested that he go to the individual farmer and say, "I think if we can have a little talk together I might be able to make you some money"; and I think even a Scotsman on that basis would not shoot them off the farm. But it is very valuable service in Manitoba; it is expanding, and we cannot meet the demands. We also have home economists, girls who go out as well. The main difficulty there is that the statistics show that they only last for about 18 months and then they marry a young farmer in the area, and then we have to go and get some more. We are not sure whether we are in the marital business or in the business of getting home economists.

Senator INMAN: I would say that is a good investment.

Hon. Mr. WILLIS: It is a good investment, and it is going to continue.

Senator HORNER: Here is the problem as I see it. You are asking the federal Government for assistance, and crop insurance, just at a time when we have a surplus in farm products, of pork, and other products, and it seems a little unrealistic for the federal Government to enter into endeavours of this kind, to advance money to assist agriculture further, when we have over-production in many commodities.

Hon. Mr. WILLIS: The purpose of getting assistance, Senator Horner, would not be to increase production, I recognize that at once; but there are many other things which they could do, and perhaps we might refer it to Mr. Kristjanson to outline probably just briefly some of those reasons, because he is very close to the problem in extension services.

Mr. KRISTJANSON: Senator Horner, in the problem area particularly,—many of the farmers are in the position where they are trying to grow the surplus products. They don't have establishments large enough to get into the best land use for the area, and that is, in these three areas—largely beef or sheep. It is going to require adjustments in these areas to get the best land use. We have in mind in the department to develop these areas for their best land use, and we suggest that it will in fact reduce the surplus products rather than increase them. A small farmer on an uneconomic unit in the problem areas in fact has to grow grain and market it as quickly as he can in a way or through a product which he can get into very easily, which is poultry or hogs, and he makes his living this way rather than employing best land use. Does that answer your question?

Senator HORNER: Yes, that is quite possible. In other words, a man may be struggling to grow grain crop, but should be in something else?

Mr. KRISTJANSON: That is correct.

Senator HORNER: And that is quite possible.

Mr. KRISTJANSON: And this is also why we are thinking about vocational training, industrializing the rural areas, taking these people out of producing surplus agricultural products.

Senator HORNER: The sorry part is that they have two grand schools in Alberta, namely, Olds and Vermilion, but the thing that annoys me very often is that the young farmers go in supposedly to make better farmers, and in far too many instances never return to the farm. There is nothing to compel them to do so, but it is unfortunate.

Mr. KRISTJANSON: In this regard, senator we have looked at this problem very carefully. Our experience with the Brandon school has been quite similar. We have mentioned the management programme we are now carrying out where we go out to the farm areas and give the instruction to young men who are actually managing farms. We are dealing with the actual farmers now rather than the young boys. As a matter of fact our biggest problem in our attendance is baby-sitting. We want wives as well as husbands to take part in this course, and we are giving them a course of instructions similar to what they would receive in a school like Olds or Vermilion, but are taking it out to them.

Senator HORNER: Another thing, and perhaps I would be accused of wishing to go back and never returning. What I want to say is this, that we have this grain surplus, and it is quite simple to understand how that occurs. We have deprived ourselves of a market of a billion bushels or more by going into the machinery and gasoline business. I maintain that many farmers would be in a better position if they used oxen and horses instead of buying tractors, because they haven't sufficient work to justify paying for such machinery, and they could use horses to far greater advantage now.

Senator STAMBAUGH: You wouldn't like to try it, would you?

Senator HORNER: Yes, I would. I would rather take eight horses out, than take out a tractor.

Senator STAMBAUGH: What is to stop you? I would like to see you do it.

Senator HORNER: Well, I will tell you that I know of many farmers in my part of the country in the northern part, that have mixed farms, and they are still working with horses, and they are much better off than their neighbours who have tractors in many parts.

Senator HIGGINS: On page 3 of the brief you make reference to dairying, and state, "there would be great difficulty in finding markets if these people were to turn to dairying." What does "dairying" consist of?

Hon. Mr. WILLIS: Butter, milk and cream; just milk and milk products.

Senator HIGGINS: Nothing more than that?

Hon. Mr. WILLIS: No.

Senator STAMBAUGH: Can you raise peas down in the area you speak of, the southeast area? Has that been fairly successful?

Mr. PARKER: It has been. In the Portage area they are producing and supplying all the markets. The northern part of the South East area is well recognized as a superior area for quality peas, that boil and soften up and make good soup, whereas many of the peas grown around Portage get harder the longer you boil them.

Senator HIGGINS: In the brief you mention "the present unfavourable situation in the butter and milk powder markets"; does margarine affect that market at all?

Mr. KRISTJANSON: There is a surplus of butter in this country due to the competition from margarine.

Senator HIGGINS: In other words, people are buying margarine instead of butter?

Mr. KRISTJANSON: Yes.

Senator HIGGINS: What is the population of Winnipeg?

Hon. Mr. WILLIS: About 400,000.

Senator HIGGINS: That ought to provide a good market for milk and butter and vegetables.

Mr. KRISTJANSON: It does for those in the immediate vicinity of Winnipeg.

Hon. Mr. WILLIS: There are more producers than markets.

Senator CAMERON: You spoke of industries developing in the country in order to keep people there. Have you any specific industries in mind that are practically in the rural areas?

Hon. Mr. WILLIS: Mr. Kristjanson passes the ball to me, because I come from the town of Boissevain, where there are 1,100 people, and where we have an industry which ships to the city of Ottawa and most other places in the country. It is called the Drings Laminated Structures, Ltd., and they build arches of wood and glue together, just the same as a propeller.

Hon. Mr. WILLIS: It was made up of wood glued together, just the same as an aeroplane propeller. One of the Drings boys was in the air force during the war and he got that idea and brought it home. They employ about 50 men there throughout the year and they own 45 houses in the town and they ship these rafters and trusses to Alberta, Saskatchewan, North Dakota, Minnesota, and the last time I was at their plant their truck was leaving with laminated structures for the city of Ottawa. Strangely enough, that is an indication of what can be done. There is no reason why there should be in Boissevain a plant of that kind, because we have no lumber there, the lumber for their works is all shipped in from British Columbia. But they had this good idea and with it they have been able to create this big plant and have made some money, starting off without any, and at the same time creating an industry in a small town there which now ships to all parts of Canada, and all because they had the will to do it. That plant has given employment in the town to older farmers who have decided that they are a little too old to work the farm and they turn the farm over to their sons. It just goes to show that you do not need to have local resources in order to build up an industry. All you have to have is the desire. They have made a great success of it and it all goes to show what can be done in a small town of 1,100 people.

Senator HIGGINS: Do they get special freight rates under the Crowsnest Pass rates agreement?

Hon. Mr. WILLIS: No, nothing special at all.

Senator CAMERON: We have a flat board and insulation plant at Innisfail something along the same lines.

Hon. Mr. WILLIS: Yes, I have seen that.

Senator CAMERON: But you have to go a lot further in developing this sort of thing and I was hoping Manitoba would come forward with a lot of ingenuity and suggestions which we might be able to take advantage of elsewhere.

Hon. Mr. WILLIS: Well, we now have legislation by which we will lend money to industries starting up in the country.

Senator CAMERON: This is provincial legislation?

Hon. Mr. WILLIS: Yes.

Senator CAMERON: Did you get any assistance from the industrial Development Bank?

Hon. Mr. WILLIS: No, we have not.

Senator CAMERON: Do you think you should?

Hon. Mr. WILLIS: We would be very happy to get it but so far we have not been successful. But what we say is that if you cannot get it from the federal you should go on by yourself, and that is what we are doing.

Senator MACDONALD (*Queens*): Is there a branch of the industrial bank located in Winnipeg?

Hon. Mr. WILLIS: Yes, and they have helped some industries in Winnipeg.

Senator MACDONALD (*Queens*): We in Prince Edward Island feed hogs for market and we depend for that to a great deal on western grains; at the price of hogs today there is a very good profit in it, but sometimes there is none at all. At the present time I believe that we have a tremendous surplus of pork products in storage, so much so that it has reached serious proportions. Can your farmers in Manitoba make a good dollar in the production of hogs?

Hon. Mr. WILLIS: It is becoming more difficult lately, and in our province more of them are turning to cattle over the long pull, and are getting out of the hog business, but many of them strangely enough are getting into the poultry business in a big way.

Senator MACDONALD (*Queens*): That is hurting us too in Prince Edward Island.

Hon. Mr. WILLIS: Well, we will have to get together on these matters.

Senator HORNER: There is one branch of livestock production that is lagging in Canada, and that is sheep. At the present price of wool it is strange that Canadian farmers are not raising more sheep than they are.

Hon. Mr. WILLIS: It is a desperate situation as far as the sheep men are concerned. Ordinarily there is only a sheep market one day a week in Winnipeg and every day there will be 1,500 to 2,000 head of cattle marketed there.

Senator INMAN: I remember reading in some pamphlet last week that by 1960 the cattle exporting business will be on a downgrade a bit. Can you comment on that?

Hon. Mr. WILLIS: I would argue with that gentleman any time or place.

Senator INMAN: Well, I just read it in one of those pamphlets that come to us from time to time.

Hon. Mr. WILLIS: I have read a great deal in regard to it, but I think that there is a sign of a definitely good market ahead for the next two of three years and you can never see further than two or three years.

Mr. KRISTJANSON: I believe that by 1961 the cow population in the United States will approach a figure sufficient to take care of their own needs. I do not know of any predictions of any large slump in the near future.

Senator INMAN: They did not say "a large slump". It said it would start to downgrade.

Mr. KRISTJANSON: Yes, this may occur in perhaps 1961.

Hon. Mr. WILLIS: What happens in the United States happens with each farmer. When cattle go up in price they are sold. A few years ago cattle reached the price of 24 cents a pound and I sold everything practically that the

trade would take and I just kept a few good cows. But the price never stopped there, it went right on to 34 cents a pound. I think the natural market takes care of these things, that when the price goes up a bit people clear out and say this is a fine price, I am getting out while the getting out is good. I still have confidence that it will take care of the situation in the United States as well. But as Senator Horner just stated, our share of the United States market is infinitely small, maybe one per cent or something like that of their requirements. I would say it is the political angle in the United States that is important. We should talk these things over and consideration should be given to keeping that market open because it does not mean much to them at all.

Senator HORNER: Their population increase there is something like five million a year. I mentioned some time ago that the thing that is operating in favour of the cattle men is the five-day week, and also that people like to live in town. Too many farmers have become like the city man, they like to have their Saturday off and so on, and so beef production suffers because cattle have to be looked after seven days a week.

Hon. Mr. WILLIS: Well, it is my judgment that the future of the cattle market is very bright, and I might say that I am increasing the number of cattle on my farm rather than decreasing.

Senator CAMERON: The most recent forecast indicates that there is good prospects for a good livestock market for the next five years rather than the next two or three.

Hon. Mr. WILLIS: I have seen that.

Senator CAMERON: I would like to go back to the question of surpluses: We have a tremendous surplus of powdered milk, pork, wheat and such. Are you, Mr. Willis, making specific recommendations as to what form this price of pork legislation might take and where you should stop?

Mr. KRISTJANSON: The Canada Department of Agriculture is well staffed with qualified people, and what the department feels here is that this should be looked at continuously in the light of changes that do in effect take place, and the department is in favour of preventing the prices from reaching disastrous levels. It is the federal Department of Agriculture which has the responsibility. As I say, they have qualified people to determine this. What we are suggesting here is that this be continued—that there should be a continuous study.

Senator CAMERON: Would your stop-gap legislation include approval of the payment of the \$300 million deficiency payments asked for by the western farm delegation last March?

Hon. Mr. WILLIS: There are times when deficiency payments are necessary. I do not say \$300 million. I also say in regard to the other that you must not go on creating undue incentives which in turn create surpluses and all of which just lead to further trouble. That must be guarded against and must be guarded against largely by the federal Government.

Senator HORNER: The leading light of that delegation was John A. Weston, head of the wheat pool elevators of Saskatchewan. He is making a showing in his business. They are building annexes to their elevators that pay for themselves in storage fees in a year or two, and he has over \$4 or \$5 million profit and feels he ought to return something to the farmer. He is the man who led the farmers downgrade during the war by agreeing to a ceiling price on wheat at a time when the United States farmers were getting high prices for their wheat and now we find Mr. Weston merely endeavouring to square himself with the western farmers.

The DEPUTY CHAIRMAN: Honourable senators, I was rather closely connected with this international wheat agreement, at the time the prices were fixed.

Senator HORNER: Yes, that was the international wheat agreement but I am talking about the British wheat agreement. To go back a bit now, if I might be pardoned for talking this assistance to small farmers, I would very much like to visit Denmark. When I was in England I met Mr. Clement Davies, a former Leader of the Liberal party in England, who is still a member of a rural constituency, and he told me that the British Government subsidized the farmers to about \$300 million, and he told me that he often visited Denmark, and he told me how prosperous farmers were in that country and that they had refused to accept one dollar from their Government in subsidies for any product. They preferred merely to concentrate on quality and production.

The DEPUTY CHAIRMAN: And co-operatives.

Senator HORNER: So much so that they can sell butter at 27 cents a pound.

Senator CAMERON: I have been in Denmark and I visited these farms and I might say that they have a very large measure of control and a very large segment of Government loans, long-term credits for financing their operations.

Senator HORNER: That is what I was told by Mr. Davies. They are quite happy and prosperous. They can sell butter at 27 cents a pound.

Senator CAMERON: I have been in Denmark and visited those farms, and they have a very large measure of control, a very large scheme of Government loans, long term credit, but for financing their operations, it is quite another matter.

Senator HORNER: I was told that they had refused any assistance.

The CHAIRMAN: May I say that according to my knowledge of the facts, they are the same as Senator Cameron has given. I offer this only as a personal opinion, but I cannot imagine farmers in Canada willing to submit themselves to the same controls, and so on.

Senator HORNER: But I understand that those controls are not Government controls but through their own associations and organizations.

Senator STAMBAUGH: I did not see many farmers driving cars or riding bicycles over in Denmark. I was there, too.

The CHAIRMAN: On behalf of all members present, I thank the honourable minister for the very interesting brief he has presented, and for the enlightenment that a study of his brief will give us. In the name of honourable senators present, I congratulate him, and thank him very much indeed.

—Whereupon the committee adjourned.

Canada. Land Use in Canada. Special Committee on Land Use

2nd Session, 24th Parliament, 1959

THE SENATE OF CANADA



PROCEEDINGS

OF THE

SPECIAL COMMITTEE OF THE SENATE

ON

LAND USE IN CANADA

No. 11

THURSDAY, JUNE 26, 1959

The Honourable Arthur M. Pearson, Chairman

WITNESSES:

Dr. H. L. Patterson, Director, Farm Economics and Statistics Branch,
Ontario Department of Agriculture, Toronto, Ontario, and Dr. N. R.
Richards, Professor and Head, Department of Soils, Ontario Agri-
cultural College, Guelph, Ontario.

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Power
Basha	Horner	Smith (<i>Kamloops</i>)
Bois	Inman	Stambaugh
Boucher	Leger	Taylor (<i>Norfolk</i>)
Bradette	Leonard	Taylor (<i>Westmorland</i>)
Buchanan	MacDonald	Turgeon
Cameron	McDonald	Vaillancourt
Crerar	McGrand	Wall
Emerson	Methot	White—31.
Gladstone	Molson	
Golding	Pearson	

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators, Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—

Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

THURSDAY, June 25, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada met this day at 10.00 A.M.

Present: The Honourable Senators:—Pearson, Chairman; Basha, Bois, Boucher, Buchanan, Gladstone, Horner, McDonald, McGrand, Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*) and Turgeon.

In Attendance: The official Reporters of the Senate.

The Committee proceeded to the further consideration of the order of reference of Tuesday, February 17, 1959.

The following witnesses were heard:—

Dr. H. L. Patterson, Director, Farm Economics and Statistics Branch, Ontario Department of Agriculture, Toronto, Ontario, and Dr. N. R. Richards, Professor and Head, Department of Soils, Ontario Agricultural College, Guelph, Ontario.

At 12.30 P.M. the Committee adjourned to the call of the Chairman.

Attest.

James D. MacDonald,
Clerk of the Committee.

THE SENATE

SPECIAL COMMITTEE ON LAND USE IN CANADA

EVIDENCE

OTTAWA, THURSDAY, June 25, 1959.

The Special Committee on Land Use in Canada met this day at 10 a.m.
Senator Arthur M. Pearson in the Chair.

The CHAIRMAN: Honourable senators, we have a quorum now, and I call the meeting to order. We have a little business to attend to before we have these briefs from the Ontario Department of Agriculture. I will ask Mr. Jim MacDonald to read the communication.

The CLERK OF THE COMMITTEE: A memo was received by the Chairman of the Committee from the Hon. Newton P. Steacy, Minister of Agriculture, British Columbia. He has requested that the proceedings, No. 9, be corrected as follows:

Page 367, fourth line from the bottom of the page: strike out the word "golden". This word was included in error, and it is suggested that interested parties amend their copies accordingly.

The CHAIRMAN: This will appear on the records, and honourable senators can correct their copies when they receive them.

We have with us Dr. H. L. Patterson, who is Director of the Farm Economics and Statistics Branch, Ontario Department of Agriculture; and Dr. N. R. Richards, who is professor and head of the Department of Soils at the Ontario Agricultural College, Guelph. The first brief will be given by Dr. Patterson, and the second one by Dr. Richards.

Dr. H. L. PATTERSON: This brief actually was prepared by a committee of the Department of Agriculture, not all of whom could come down here with it. It has the blessing of the Minister and the Deputy, both of whom have gone over it, as well as those who were responsible for getting the information together. In presenting it, there was some difficulty because Professor Richards is up at Guelph, and the rest of our committee was working from Toronto, but we tried to prepare this material on the basis of six questions submitted to the department. Since soils fits into one of these questions, I am asking Professor Richards to take over at that point and present the matter of soils as it enters into the problem of small farms. Otherwise it may be considered as one brief. The first question has to do with the nature of the problem and the factors which result in non-economic farm units.

There have always been farms too small, in terms of output, to provide a satisfactory living for the farm operator and his family. The problem has become more acute in recent years because of rapid changes in our economic structure. There have been rising incomes and ready employment in industry. There has also been a rapid succession of technological improvements available to farm operators who can use them. This has put the small farm operator under pressure (1) to provide his family with the level of income provided by other farms and other occupations—this is very important in Ontario, because wages in industry are high—while at the same time (2) he is forced into competition with large operators using big machines and improved techniques which he cannot use to advantage on his small unit.

The most important change has been the large power machinery available which can do large jobs at relatively low cost, but are so high in initial cost that they are not economic to use in small enterprises or where the land is badly cut up with obstructions to cultivations. Technical advances have helped larger operators to produce more cheaply and has made the competition much tougher for small farms by depressing prices, and it is that much harder to get the same income as formerly on the small farms. These problems are not new, but the rapid rate of recent change has meant that more farms than usual are caught by the need for adjustment. This comes about because farms require a proper balance between land, buildings, and the more or less permanent labour force. It takes a generation to develop these balanced farm units and they are difficult and slow to adapt to other scales of operation.

The problem may be different according to the farm and the personal financing. If the problem is low income, it may come from:

- (a) low income per acre,
- (b) too few acres.

Even with low earnings the problem is different in effect where:

- (a) the farm is clear of debt,
- (b) the farm is rented, or
- (c) the farm is carrying a heavy debt.

Low income may be the result of ineffective crop and soil management or it may be poor choice of crop. The effect of low incomes per acre may be better understood in terms of crop yields and values per acre. I have a chart on the next page which you can look at for a moment and which will give you, I think, a bird's-eye view of what the effect of different crops is in Ontario, and the amount of dollars they contribute per acre. This is based on the average yields for Ontario and the average price for these particular crops. I particularly draw your attention to hay, which is third from the bottom, and shell corn and soya beans which are pretty close to the top as far as dollar value per acre is concerned, because that is entering into this picture later on. Taking average yields and average prices received by farmers from the 1955 provincial statistics, it will be seen that average value per acre of the different field crops varied all the way from less than \$20.00 to over \$60.00 per acre. That is on the basis of average yield, leaving out of consideration the factor of poor soils, which means less than average yields, as well as some soils which have much better than average. If some of the specialty crops are considered, the higher value per acre may rise to over \$200.00 per acre for potatoes, or even \$600.00 per acre for tobacco. The different types of live stock vary similarly in the amount of income they will produce per acre of feed.

The position of operators under different finance positions can be illustrated by the average distribution of total receipts found on 195 beef-hog farm accounts in 1958. There is a pie chart, two pages over, which gives you the picture of how the income on these farms was distributed.

Current cash expenses including operating and feed or live stock purchases absorbed 64 per cent of the gross receipts on these farms. If the farms were free of debt, and the owners not concerned about maintaining the buildings or equipment, they would have 36 per cent of the gross receipts to live on. Even with a low gross income this might be enough to keep going on. However, if they were young enough to live for some time, they would have to maintain the fertility and to replace the equipment and buildings, or at least the roofs of the buildings.

Senator McDONALD (*Kings*): In travelling through Ontario I notice quite a few places where there is old grass, that is the grass has not been cut. Would that be because in such cases old people were living there and not doing farm work?

Dr. PATTERSON: There is a lot of that right across Ontario.

Senator McDONALD (*Kings*): There are no larger farms with people up-and-coming who can go in and work these places with machinery?

Dr. PATTERSON: In some areas there are, and in some there are not. That all depends on local conditions, as to the farms that can use more feed.

This explains why many of our small farms are occupied by older people who have no debts and are not so much concerned with maintaining equipment or buildings or soil fertility. We have a lot of farms in Ontario in that position. Young people starting out usually avoid these smaller farms and when the older owner leaves, the small farm is likely to be incorporated into another farm or may revert to rough pasture. I am referring only to small units. From there it may ultimately become part of another farm unit or if the soil is poor, may ultimately be abandoned.

I mentioned in the last paragraph the possibility of farms being abandoned. That is a real consideration in Ontario. We have abandoned close to a million acres of farm land between 1951 and 1956. We also abandoned close to a million acres between 1941 and 1951.

Senator McDONALD (*Kings*): What would be the cause of that? Poor soils?

Dr. PATTERSON: It is mostly poor soils. I think you could get a good explanation of that when Dr. Richards deals with soils. It is not the areas close to cities that account for most of that million acres. The biggest single fall out in any one county would be in Renfrew.

Senator McDONALD (*Kings*): Would that be owing to distance from market?

Dr. PATTERSON: Poor soils, difficulty of assembling a good unit in one spot within reasonable distance of markets. It is a combination of causes. I just wanted to draw your attention to that map. I think this matter of abandonment of farms in Ontario is something that we cannot speak lightly of. It is a problem that is with us, and it is one which calls for a lot of adjustments. You will notice the solid red areas, which areas from 1951 to 1956 had a decrease of over 500 acres per township. It may interest you to know that Renfrew, which had the biggest fall out of any one county, has approached the Ontario Department to have their township councils abolished in eight of their townships in the past year.

The CHAIRMAN: The province takes over the administration?

Dr. PATTERSON: You have the county unit left, but as for the township council, you just cannot afford to maintain them under these circumstances.

Senator McDONALD (*Kings*): I had an idea that that is a county for beef-raising.

Dr. PATTERSON: It is, but we find that these areas are following a distinct line of adjustment. You come from the operating farm to the beef pasture, and then in a period of time the beef pasture is abandoned. Most of the land that was abandoned was beef pasture. It seems to be an intermediate stage on its way out.

Mr. STUTT: The line in solid blue, what does it mean?

Dr. PATTERSON: That is where there was less than 500 acres of increase or decrease in those particular townships. There are some areas, other shading is shown, where you had a line showing 500-acre increase, but those actually were dots that ran on the map in printing.

Now, as to the extent and significance of the problem, even under the most favourable circumstances there is likely to be less than half the gross income at farms available for the family living. The last indication we have of farm incomes by areas is from the 1951 census. If we can accept \$2,500.00 gross sales per farm (or probably less than \$1,250.00 cash to live on) as something of a minimum for desirable living, then the problem is very extensive. The 1951

census indicates that there were 46,170 farms in Ontario where the operator sold less than \$2,500.00 per farm in the previous year. This would be 39 per cent of all the farm operators receiving over 50 per cent of their income from the farm. (This does not include part-time farms or farms using over half of the farm products in the house.) This is what the census classes as a commercial farm, and about 39 per cent of these would be in that class.

A report on a study of how farms are transferred from one generation to the next in Ontario Farm Title Transfer Study, by H. F. Noble, Farm Economics and Statistics Branch, Ontario Department of Agriculture, Toronto, Ontario) indicated that 66 per cent of all owner operated farms were mortgaged at the time of acquiring the farm. That was done by our own branch over a period of four years, using the registry offices as one of the main means of determining this. Seventy-four per cent of all the farm operators operated farms that were mortgaged at some time. The situation re mortgages was similar in family transfers to that of outside sales. Sixty-six per cent of the sons taking over had to assume mortgages at the time of transfer, or later.

The next generation of operators are likely to have to finance purchases and maintain equipment or fail. This means that many of the 46,170 low income farms are likely to disappear or become serious finance problems when the next generation of operators take over, if not sooner.

As to the regionalization of the problem, there are small farms and a small farm problem in all parts of the province, but it is most acute on the Canadian shield, and on other high land with rough terrain. We have on the next page a map of Ontario, drawn in four categories, on the basis of the per centage of the farmers in each county which had less than \$2,500.00 income. I referred to the shield area as a solid area, and it corresponds with the mark at the left which shows the solid blue area, and having over 50 per cent of all the farms within six counties having less than \$2,500.00 per farm. Eastern Ontario is mostly in the class of 45 to 50 per cent of farmers having less than \$2,500.00 sales. Then you get over to Western Ontario, which has two general groups, those with 30 to 40 per cent below \$2,500.00, and then a block of farms, of less than 30 per cent. There are two additional features to consider. One is that the counties touching Lake Erie are the counties where, generally speaking, you run into a high percentage of cultivated land, and not so many small farms of the problem type. In the block of farms Huron Perth, Waterloo and Wellington, you have some particularly good soils, as Professor Richards will point out. But there is one additional feature. Most of the grain from Western Canada is fed in that area—the larger percentage of it; which we find from another study done in the Department. The high percentage of the western grain used around Goderich and the main line to Toronto and Montreal, right through those counties which are shown in white, gives them an advantage, because of their location, over the rest of Eastern Canada. Probably that has helped them a good deal with the small farm problem. Before we leave that map, let us look at a table on the next page, Table I: The Relation of Farms with Gross Incomes Below \$2,500.00 to Per Cent of Crop Lands Used for Hay. This is rather important, I think. Look at the last column and the first column to get the relationships. Those farms shown on the map as having over 50 per cent have 63 per cent of all their field crop lands in hay; those from 40 to 50 per cent have 49.5 per cent; those in the 30 to 40 per cent have only 34.7 in hay, which leaves the less than 30 per cent farms, which had only 28 per cent of their crop land in hay. I am suggesting that this limitation of crops suitable placed on some of these areas is causing part of the small farm problem, due to soils and climate; and at this point I would like Dr. Richards to produce some information on soils and their relation to the small farm problems.

Senator McDONALD (*Kings*): Would not the nearness to markets help those who have the larger farms in the south and south-west districts of Ontario?

Dr. PATTERSON: No, that area is not actually in a very good position as far as marketing is concerned. The middle part, including Oxford and Elgin, includes mostly processed milk counties. It is the cash crops that are the big income producers there. Fifty per cent of the tobacco in Canada is produced in Norfolk county and extends over into Elgin, and it also has a big effect on South Oxford, and Kent county has a large variety of cash crops. That is our big corn and winter wheat county.

Senator McDONALD (*Kings*): They are not beef-producing regions?

Dr. PATTERSON: They are producing beef, but it is a secondary matter with them. As a matter of fact a lot of farmers in Kent county do not have any live stock on the farms at all.

Professor N. R. RICHARDS: Senator Pearson and gentlemen, as Dr. Patterson has indicated, I will deal with the section of this report which has reference to the land-quality factor as it relates to land use. There is a wide range in quality of soils being used for agricultural purposes in Ontario, and from our soil classification information, we know that these differences are due to the interaction of such things as parent material, the type of rocks from which soil is formed, and the effect of drainage, climate and vegetation on these materials. We have already mapped and classified more than 500 distinctly different soils in Ontario. It is not necessary, nor feasible at this time to attempt to consider all the individual types to obtain a broad picture of the agricultural resources of the province. But as an introduction to this part of the report, I do propose to attempt to give you a picture of the soil resources with which we have to work in Ontario. I rather expect that previous speakers have explained to you that we do separate the soils on the basis of the characteristics that we see beneath the surface of the ground, and we refer to them as the profile characteristics.

If we look at the map of Ontario, the area coloured yellow, and we refer to these as our brown forest soils have developed, from high lime till materials.

The soil parent material occurs at depths of 20 to 24 inches. This means there is 20 to 24 inches of soil which the crops make use of when they are growing. The major land use problem associated with these soils is one of susceptibility to soil erosion and limitations in soil fertility. We have approximately 3,600,000 acres of brown forest soils in the areas I have shown on the map, the area and the acreages referring to that portion of Ontario lying south of the French River, Lake Nipissing and the Mattawa River. Then what we consider the heartland or most versatile soils in southern Ontario are shown in green on the map, and they, too, have also developed in well-drained or imperfectly drained high lime materials, but they differ from the brown forest soils, in that the parent material occurs at 24 to 36 inches. These soils are well suited for agricultural purposes and are responsive to good soil management practices. Inadequate fertility, particularly on the coarse textured types, and susceptibility to erosion are the main hazards associated with the grey-brown podzolic soils.

Now, the next group are the Podzol Soils. The areas hatchured in brown, and these are the soils where, if you refer back to Dr. Patterson's map, there is a concentration of the low-income farms to which he referred. These are highly leached, usually acid in reaction. The natural fertility status is low, and these soils are very susceptible to the hazards of wind erosion. We have approximately 12 million acres of this type of soil in the province.

The next group, the areas coloured in blue on the map are the imperfectly drained soils that occur in the province, and of course the main limitation associated with the agricultural use of these soils is one of inadequate drainage.

Then we have the areas marked in orange, the Grey Wooded Soils of which there is 1,000,000 acres. They have very thin surface soils, quite acid in reaction, and by and large are not as responsive to management as the soils in the southern part of the province.

Then we have the group here referred to as Lithosols, which are indicated on the map by the symbol "L". These are the thin soils with less than ten inches of soil material overlying bedrock.

The foregoing is a summary of the dominant characteristics of the soil in the southern part of the province.

Now, we interpret this information into a land use hazard map the hazards that restricts the use of these soils for agricultural purposes. I will point these out in the next map.

Poor drainage is the main hazard associated with land use for agricultural purposes, and these areas are indicated on the map by blue colour, and on your map with the figure "1". Until the drainage problem is corrected in these soils we cannot use effectively other improved practices in soil management, such as fertility improvement. I have an observation to make here which I think is pertinent, and that is that we have had a much larger proportion of drainage improvement carried on in the southwestern part of the province than we have had in the eastern section. Again coming back to Dr. Patterson's map we find there is a greater concentration of the low-income farms in the eastern section.

The second problem or hazard associated with the use of these soils for agricultural purposes is a lesser drainage problem, that is, imperfect drainage as indicated on the map in green colour, or on your map by figure "2".

Now, in the Niagara Peninsula there is an area with imperfect drainage, and it is underlain by very, very heavy subsoil which makes it difficult to effect drainage improvement. Other hazards are steep topography; susceptibility to erosion; low fertility because of the sandy nature of the soils; susceptibility to water erosion (a large proportion of soils in southern Ontario are susceptible to erosion, susceptibility to erosion and excessive stoniness. There is a concentration of low-income farms in this area).

Then there is an area with less than ten inches of soil; over limestone bed-rock and in area number 9, frequent rock outcrop interspersed with clay or fine textured soils occurs. The soils in the large area, number 10, are low in fertility, and this is an area to which I shall make reference later, and this is an area on Dr. Patterson's map again where there is a concentration of low-income farms indicated.

Now, what is the relationship of the soil hazards, as we know them, with the size of farm units? I have already made reference to the productive capacity of land being closely related to the quality of the land, and by "quality" I mean such things as fertility status, the condition of drainage on the farm, susceptibility to erosion, depth of bedrock, and whether or not stoniness interferes with cultivation. It naturally follows that as the hazards associated with agricultural use increase the number of acres required to establish successful agricultural endeavours increase.

Cadastral surveys show little relationship between land quality and size of farm unit. By that I mean the size of unit in the original surveys have little relationship to the quality of the land on which the farms are located. We have areas in Ontario, and I am thinking of the south of Peel county for example, where the original size of a farm unit on the high quality land was the same as on the lower quality land to the north of the county. In the north of the county, as some of you probably know, very hilly, sandy, stony soils occur, and in the original surveys there was one hundred acres of land parcelled out in the low quality land and one hundred acres parcelled out to the south. In the low quality areas the size of the unit being used is too small to establish successful

enterprises. We know that the land use pattern in Ontario has grown out of a century and a half of settlement and development. For the most part it lacked the benefit of any central or regional development. It was not based on scientific knowledge of the soil as we know it today from our soil classification and land use surveys. Land clearance was an art—a practice which rolled back the forest frontier without regard for the quality and endurance of the land when brought under cultivation. Unquestionably there were areas cleared and an attempt made to establish agricultural endeavours that should have remained in forest cover.

Now, as we think of this land quality factor, what can be done to overcome some of these hazards to which I have made reference? It must be recognized that any kind of soil on a farm is a complex combination of characteristics, no one of which is meaningful by itself and apart from the others; but we do know that for each soil there is an efficient system of use and management which is a combination of practices that must be fitted to the soil in a way that recognizes its different characteristics. That is why on the individual farm we must recognize such limitations or hazards as low fertility, drainage problems and erosion problems, in attempting to work out a system of soil management and crop production in sympathy with the quality of the land on the farm. Such systems must recognize the hazards that affect the effective use and productivity of the land. For example, if drainage is the limiting factor it not only influences the kind of crops that can be grown, but so long as it remains the limiting factor it precludes the possibility of employing other improved management practices such as the use of fertilizer, to the most effective advantage.

Technological information is available that makes it possible to increase productivity on both low and high quality land. Depending on the hazards influencing agricultural uses if one or more of the following practices were applied, productivity could be increased on the majority of farms in Ontario.

(a) Drainage improvement.

(b) Effective use of fertilizer.

Although Ontario uses slightly more than half of the fertilizer sold in Canada the amount applied in different regions within the province varies greatly. The rate of application on high value crops, such as tobacco and grain corn, is much higher than on cereal grains, hay and pasture. The rate of application per improved acre is much higher in Southwestern Ontario counties than in the eastern counties of the province, the Shield area, and the Northern Ontario districts.

I have a table here of the amount of fertilizer used per improved acre in a number of Counties. In Bruce county it is 52 lbs. Bruce county is an area where there is not a large concentration of high value or special crops. We come down to eastern Ontario, the county of Carleton, where a little over 19 lbs. of fertilizer is applied per improved acre.

Senator TAYLOR (*Westmorland*): Is that the number of pounds per acre per year?

Dr. RICHARDS: Yes, pounds per acre per year. In the district of Cochrane, in northern Ontario, a little over 9 lbs. of fertilizer per improved acre; Dundas county, in eastern Ontario, 11 lbs. per improved acre; Durham county, in south central Ontario, 68 lbs. per improved acre; in southwestern Ontario, Essex county, 170 lbs. per acre. Essex is a county where drainage is the main dominant hazard to land use and where there is a large proportion of the lands imperfectly drained, and the limitation has been overcome. In Haliburton county—on the Canadian Shield—6 lbs. per acre; Oxford county, another county in southwestern Ontario, 120 lbs. per acre; Prescott county, in eastern Ontario, 18 lbs. per acre is used.

I give these figures because it seems to me that on these low quality lands there is a real opportunity to improve the productivity and the volume of production on the farm, if we could get an effective application of the technological information that is already available.

Senator STAMBAUGH: Is the same type of fertilizer used right across Ontario, with the same amount of nitrogen, and so on?

Dr. RICHARDS: No. In Ontario through the Advisory Fertilizer Board, I think we recommend twelve different ratios of fertilizer, and these will differ according to the crop that is being grown. Many of the fertilizers in Ontario are applied according to a soil test.

Senator STAMBAUGH: There would also be a difference in price?

Dr. RICHARDS: Depending upon the proportion of nitrogen, phosphorous and potassium they contain. There will be a wide range in the type of fertilizers used across the province. We will find that fertilizers with a close proportion of nitrogen to phosphorous to potassium, are used in the southwestern part of the province, because the livestock population is lower in this area, and the cash crops require nitrogen, and this is supplied through chemical fertilizers.

Dr. PATTERSON: In other words, you have counties that use low quantities of fertilizer and they are also, generally speaking, the counties which use the low nitrogen fertilizer?

Dr. RICHARDS: Oh, yes. The percentage of nitrogen, generally speaking, will be less in those counties that are using the smaller amounts.

Senator McDONALD (*Kings*): Haliburton is in the Canadian Shield area, is it not?

Dr. RICHARDS: Yes.

Senator McDONALD (*Kings*): These figures showing the pounds per improved acre per year are average figures, and do they do justice to the better farmers in the area? Some farmers in a particular area would be using more fertilizer than that per acre, would they not?

Dr. RICHARDS: Oh, yes. I do not have information as to the number of farms on which the 6 pounds of fertilizer per improved acre was used.

Dr. PATTERSON: What that really means is that very few farms are using it.

Senator McDONALD (*Kings*): Yes, I suppose it is not very profitable, the farms are not very profitable there even with fertilizer, in the Shield area.

Dr. RICHARDS: The interpretation I am placing on that is that there are few farmers using fertilizer in the Haliburton area.

The CHAIRMAN: I suppose if there were more farms there would be more production, and if more farms were using the fertilizer there would be more production?

Dr. RICHARDS: Yes, because the soils are very responsive to improved soil management, which includes fertilization.

Senator McDONALD (*Kings*): Erosion constitutes quite a problem. I notice in travelling by train from here to Montreal the muddy complexion of the water. We do not have that very much in some other provinces, but I suppose that is due to erosion—the soil seeping into the water?

Dr. RICHARDS: Yes. We have a large acreage of soils in Ontario that are susceptible to erosion—the areas coloured in yellow, and area number 7 through here. I have a figure here: susceptible to erosion,—six million acres in southwestern Ontario where erosion is the main hazard.

Now, since fertility is a limiting factor on many Ontario soils and particularly on the coarse textured soils which predominate on the Shield area, fertilizer could be used to effective and profitable advantage. One must recognize, however, that no two fields on the same farm may be exactly alike. For highest

returns from fertilizer, farmers are encouraged to make use of a soil testing service. On the basis of field trials carried out on several farms in Ontario, the use of fertilizer on corn, according to soil test, resulted in a return of \$4.00 per acre more than the use of the best average fertilizer based on a general recommendation.

What I am saying is that on these low-income farms, where there is a very low rate of fertilizer per improved acre being used at the present time, we feel that the soils are highly responsive to improved fertility, and if fertilizer is used the farmer should be encouraged to procure the best kind and amount of fertilizer for the crops to be grown, because that is the purpose for which a soil testing service is made available in the province.

In Ontario the Department of Soils, with the co-operation of the Extension Branch of the Ontario Department of Agriculture, provides a land use planning service to Ontario farmers. Farmers desiring this service make application through their Agricultural representative. A soil specialist makes a survey of the farm, mapping type of soil, slope, erosion, stoniness, present land use, and gathers other pertinent facts as a basis for developing a soil management and crop production program for the farm. In consultation with the farmer, plans for suitable rotations, field re-arrangement, fertility practices, pasture renovation, methods of erosion control, and drainage improvement, are drawn up as required.

Senator McDONALD (*Kings*): That is very important. How much of the province now have you mapped so that people going into Ontario to purchase farms can pick out the desirable places to farm?

Dr. RICHARDS: We have soil survey information now for all areas south of the French River with the exception of the county of Lanark and Lennox-Addington, and we have survey parties in these areas this summer. We have soil survey information for the remaining portion of the province. This service to which I refer now is a service that we make available at the individual farm level, and it is designed to work out a system of soil management and crop production in keeping with the quality of the land found at the farm level. We have worked with a little over a thousand farmers, and have developed farm plans for that number. The common practices that are recommended are listed in a summary based on the 1,000 farms. We found that on 90 per cent of the farms we recommended improved rotations or suggested that the farmer include more grass and legumes in the rotation, a longer rotation, depending upon the problem with which he was confronted; or in some cases it was suggested that the rotation be shortened and a more concentrated effort be made on growing cash crops. On 90 per cent of the farms we recommended improved fertility practices, that is, the more effective use of fertilizer and barnyard manure, and that in the case of fertilizer the analysis and quantity of fertilizer that would yield maximum returns per dollar invested in the fertilizer be used. On 70 per cent of the farms we recommended pasture renovation-clipping top dressings, and so on. On 50 per cent of the farms, we recommended grassed waterways. On 50 per cent of the farms we recommended contour field strips. On 50 per cent of the farms we recommended drainage improvement. On 20 per cent of farms we recommended reforestation, because of some limitation in the quality of the land itself, steep topography, or wind erosion, or some other factor.

It will be noticed from those recommendations, with the exception of drainage improvement, that a large capital outlay is not involved.

These recommendations, from our observations and experiences with the thousand farms, form the basis for the extension of this information to other farms located on similar soils and following similar types of farming.

There is a tendency for small income farms to be concentrated in Eastern Ontario, the high land of Grey County, and the Canadian Shield area. These

are areas of the province where there is a high proportion of low quality land. In many instances, because of hazards inherent within the soil itself, such as very steep topography, excessive stoniness, inadequate drainage or very low fertility status, the number of acres of land suitable for agricultural purposes precludes the possibility of establishing a satisfactory and workable unit.

I think you will find in many of these areas that because of the character of the land itself there is a small proportion of the total area of a farm, on many farms, that is suitable for growing agricultural crops are suitable for cultivation.

If land re-assembly were practised it would probably result in not only making available a sufficient number of acres of land of suitable quality for a workable unit for agricultural purposes, but would also necessitate a combination of agriculture and another type of farming such as forestry. Much of the land, particularly on the Precambrian Shield is ill-suited for agricultural purposes.

Senator McDONALD (*Kings*): Is anything being done in that Shield area in the matter of reforestation? Is the Crown buying some of the neglected and run out farms?

Dr. PATTERSON: The Ontario Department of Land and Forests has a big appropriation for buying land in Ontario; they are prepared to take any parcel of land and reforest it provided that no one is going to require it for agriculture for 50 years, because it would not be worth while to re-forest it if it were required with in that period of time.

Senator McDONALD (*Kings*): There would be quite a large proportion in that northern eastern area, would there not?

Dr. PATTERSON: They have taken quite a bit. Then a number of private individuals will buy to let it go to forest.

Dr. RICHARDS: There is a large amount of reforestation in Simcoe County, and a large amount of reforestation in this area through here, number 4, because of the land quality factor, and the sandy nature of the soil.

In summary I would say that for the low quality land we do have technological information by which the productivity of this land can be increased if we had it efficiently applied at the farm level.

The second point I would like to make is that in the Shield area particularly, our size of unit often precludes the possibility of making a sufficiently large enough number of acres available for the establishment of successful agricultural endeavours.

Senator HORNER: Many farmers buy tractors and other mechanical equipment for the farm which they cannot afford, and often that makes it much more difficult for the farmer to carry on rather than to make life easier for him.

Dr. RICHARDS: I do not think you will find as high a degree of mechanization on these low quality soils as you do on the better soils in the southwestern part.

Dr. PATTERSON: I think the real problem with the small income farms is that they have not been able to mechanize, in many cases.

Senator HORNER: I know many farmers who have gone too far in the purchase of machinery for their farms.

Dr. PATTERSON: There are a lot of them; but many of them could not even get a loan for machinery.

Senator MACDONALD (*Queens*): What quantity of fertilizer do you recommend farmers to use in growing oats?

Dr. RICHARDS: The amount of fertilizer to be used for an oat crop would depend on the kind of soil on the farm, the type of rotation the farmer is using, whether manure is available, and what his management practices are. So to answer your question it is difficult to say how much fertilizer we would

recommend for the oat crop. We do have general recommendations that are made through the Advisory Fertilizer Board for the province, and if my memory serves me correctly, I think the general recommendation for oats is a 5-20-10 fertilizer.

Senator HORNER: With regard to the small farm which is under the plough, there is a section in Ontario farmed by the Mennonites, who do not believe in using any power, even in using cars, and their farms are the show place of all the farms. In the United States it is worth anybody's time to visit their farms, for they are wonderfully managed, and they will not have power of any kind.

Senator MACDONALD (*Queens*): I have another question to ask. In speaking of fertilizers, do you use much lime?

Dr. RICHARDS: Yes, in Ontario we are using between 35 and 40 tons of lime per year, but that is not as much as we should be using.

Senator MACDONALD (*Queens*): I would say that would be a pretty small amount.

Dr. RICHARDS: Many of our soils are not acid in reaction; they are formed from limestone rock. We do have large areas of soil, and this area is one of them, which are let us say "podzols" and the first step in fertility improvement is to correct the acidity problem.

Senator FRASER: Has that not been pretty well accomplished, or is it still underway?

Dr. RICHARDS: We have the larger proportion of this area drained.

Senator FRASER: You need to look after your outlets, of course, on your tiled drainage, and it will pretty well last a lifetime, will it not?

Dr. RICHARDS: There are many systems being replaced in Essex and Kent counties.

Senator FRASER: I helped to put some of them in years and years ago, so I was curious to know how the thing has developed.

Dr. RICHARDS: Well, we have a larger acreage of improved drainage in our south-western Ontario counties than in any other section of the province.

Dr. PATTERSON: There is the matter of the sub-soil. You remember that we heard in some of these areas that it is difficult to get tile to last more than ten years, because of the silting.

Dr. RICHARDS: That is on the finer textured overburden.

The CHAIRMAN: Now, Dr. Patterson, would you continue with this first brief, and then further questions can be asked afterwards.

Dr. PATTERSON: The fourth question that was presented deals with the reasons for persistence of the problem,—the reasons for the persistence of this small farm problem. I think it is only right to point out in the first place that we are adjusting the problems of the small farm. It is not a static thing, it is something that is constantly changing. In Table II, on page 5a, I have a compilation, from the successive census reports in Ontario, of the number of farms of various sizes. You will notice the acreage of farms of fifty or less is going down; that is, we have roughly only half of what we had in 1921 of that size. The number from 51 to 100 acres has gone down from 74,000 to 43,000, a little over half. The number from 101 up to 200 has gone down, as you will see, considerably, but the number with 201 acres and over, as you will see at the bottom of the table, has risen from 16,000 to 23,000.

Senator McDONALD (*Kings*): Because of mechanization?

Dr. PATTERSON: Yes. That has been a fairly steady, continuous process. We cannot say it is a sudden thing; it has been going on all the time. It is

not a static problem, it is changing. The results of this adjustment process are slow because:

- (a) It takes a generation to adjust the problems because of the human factor involved. Only young people are likely to leave and start elsewhere;
- (b) Economic conditions are changing and the minimum size of the small farm changes with them. The small farm problems of 20 years ago, in many instances, were solved by incorporation into larger units or by straight abandonment. However, many farms which were good units 20 years ago, under the economic conditions of that time, are now too small to provide the living expected today. You must remember that the living standards, and what farmers expect who remain on the farms, are rising.
- (c) Farm operators may not recognize their problem as a "small farm problem", but may think of it as a "price" or "market" problem. That is very common. This may slow the problem-solving until the operator is forced to move.

The changing economic conditions give us the continuing problem of the small farm.

I come now to the question of problems for investigation. We are getting into things which are more matters of policy, and we have set down those matters which the Department feel strongly about.

There are many causes of unsatisfactory incomes, but perhaps the key to investigations should be

- (a) The minimum net sales likely to produce an adequate income over the years.

As Dr. Richards will point out, a great many farms could increase their productivity quite a bit, but even if they did increase their productivity, that would not let our worst problems out from under. An extreme example might be that, with our highest production of potatoes under a crop improvement plan, or say 800 bags per acre, even that rate of production is not enough to make a living on one acre.

- (b) What volume would have to be sold to produce that income from each class of crops or stock and the productive land needed to produce that much.

Information of this type is available through account books and cost studies in Ontario, but it would need a good deal of compiling from different studies with interpretations. We are working on it through an inter-departmental committee, but at the present time the studies are in northern Ontario which includes a bigger block of those districts with small farms. In these the assembly problem would not be so difficult as with the lands that are parcelled out in southern Ontario.

- (c) Some plan of assistance in assembling better sized farm units, such as community pastures.
- (d) The possibility of speeding the processing of adjustment by:
 - (i) Adult education programs,
 - (ii) Land purchase for forestry or grazing with older operators given right to sell and still live out life span on farm (New York plan).

Where a large movement of people was necessary, we might put in a course of adult training which would give them special skills and enable them to adjust to other lines of work. There are areas in Ontario where you do not have much opportunity to learn what you have to know to get a job in industry, for instance. It is possible that a trade school of some type might help adjustment in those areas, although only a few areas are involved. New York used this method of purchase now and possess later in connection with purchasing of land for reforestation.

Senator HORNER: Does this land remain the property of the state?

Dr. PATTERSON: Yes. It would be handed over for reforestation. In Ontario the Department of Lands and Forests would take it over. It is a simple matter for them to do it that way; it would get around the problem of where a lot of farms are not being adequately worked.

- (iii) Supervised loans to facilitate re-assembly of proper units.
- (e) All forms of research pertaining to improving agriculture.
- (f) A study of the problems of maintaining good social services with some attempt to determine minimum density of population before abandonment desirable.

As to suggestions for improving the situation, the Ontario Department of Agriculture recognizes the rapid change taking place in agricultural communities in recent years and is making every effort to gear its programme to meet the present needs of farm people through the work of its various branches and institutions.

The programme of the Farm Economics and Statistics Branch is of increasing value to the farmers in the province each year. Cost studies have now been carried on for a considerable length of time and provide factual information on the production of most Ontario farm products. The reports of these studies give not only average production costs, but also the factors that are related to the successful production of those crops on farms where success is above the average.

This work has involved some 600 co-operators in various types of enterprises, each of whom is supplied with a crop management report by the Branch.

In addition, there are another 420 co-operators doing Farm Account Book work, most of whom are members of Farm Management Associations.

The 1,320 members of the Dairy Herd Improvement Associations also carry out complete cost of production studies on their dairy enterprise. The work is done in co-operation with the live stock branch. That also includes management units which go to the farmer every year with a definite programme of improved management.

The live stock branch in itself is active in assisting all farmers of the province in its various programmes.

Typical of this is the work done in advance registry programmes in beef cattle, which is making it possible for more performance tested breeding stock to be made available to the farm population, and which tends to take much of the guess work out of breeding programmes.

The Department has a policy of paying premiums to farmers for the purchase of approved herd sires, with increased premiums being applicable to performance tested bulls.

Each year shows a marked increase in the number of cattle serviced through licensed artificial insemination centres. This is of particular assistance to the small farmers in that the services of top sires of all breeds of cattle are made available in every section of the province.

It is also recognized that animal health is one of the most important factors in efficient live stock production. The Ontario Department of Agriculture, through the Live Stock Branch—and also through the facilities of the Ontario Veterinary College at Guelph—is constantly striving to improve the health status of all live stock in the province.

In crop production, as in live stock, the Field Crops Branch is also active in promoting a programme for the betterment of farmers in general.

There are 56 local Soil and Crop Improvement Associations organized in every county and district in the province, which are supported financially by the Ontario Department of Agriculture. It is through these branches, and co-operating members, that most of the field demonstration work of the Department is organized. These branches average about ten projects each, or in the

neighbourhood of 600 demonstrations per year. A wide variety of projects is covered, but nearly all of them are planned to encourage the use of improved varieties, higher quality seed, improved cultural practices, including rotations and fertilizer use, and soil management, including trash cover, cover crops (pasture improvement), liming, drainage, moisture conservation, and water reservoirs for live stock, fire protection, recreation, etc. The value of these demonstrations is enhanced by field tours, seed shows, spring and fall meetings, etc.

Concerning beef pasture improvement, the Department, through a committee, operates five beef pasture farms and several smaller projects to demonstrate improved carrying capacity of pasture farms, particularly in beef areas.

With regard to weed control, the Crops Branch administers the Weed Control Act through four full-time and six part-time district inspectors and a county inspector in each county. Through the judicious use of chemicals and cultural practices, tremendous soil and plant food resources are conserved, adding to the efficiency of the soil.

One effort of considerable importance to farm adjustments is the junior farm loan operations. One of the more common types of loans advanced is for purposes of enlarging the operations of farms to economic sized units.

Any assistance made available to farmers to assist them in carrying on their business, whether it be from educational or research institutions or other sources, is of necessity a job for extension.

The Ontario Department of Agriculture has consistently expanded the Extension Branch during the past number of years to more adequately meet the demands of the farming community—not only because of an increased volume of inquiries and an expanded programme—but also because of the greater specialization taking place in most areas.

Senator MACDONALD (*Queens*): How do you handle weed control by spray?

Dr. PATTERSON: Most of it is handled individually by the farmers.

Senator MACDONALD (*Queens*): For instance, are you bothered with mustard, and the like of that?

Dr. PATTERSON: Yes, we get lots of it.

Senator MACDONALD (*Queens*): Can you control that by spray?

Dr. PATTERSON: Yes.

Senator MACDONALD (*Queens*): And is it successful?

Dr. PATTERSON: Yes, it is one of the easiest weeds there is.

Senator TAYLOR (*Westmorland*): What about junior farm loans? What is the maximum loan they can get?

Dr. PATTERSON: I am not sure if I am up on the latest legislation. There was a maximum of \$15,000 until the last meeting of the legislature. The average loan that has been made is about \$8,000.00.

Senator McDONALD (*Kings*): Is this for new settlers as well as sons?

Dr. PATTERSON: Junior farmers, and presumably only for junior farmers who have already demonstrated some ability, on a farm, either their own home farm or as a young man in the territory. Quite a number are new immigrants. The rule is that he has to be in the province three years before he is eligible, and under the age of 35.

Senator TAYLOR (*Westmorland*): Is it the plan to buy a total farm outright, or to buy additional land?

Dr. PATTERSON: It is to buy anything, but in a great many cases it is junior farmers who want to start up before the father is ready to quit. Possibly the father is backing them to some extent, and he gets the junior farmers a farm which they purchase, in order to get started.

Senator McDONALD (*Kings*): How about the men who are being used in farm management throughout the province? Are you able to get a sufficient number of suitable, qualified men for that work?

Dr. PATTERSON: Top notch farm managers in Canada are almost as scarce as hen's teeth. I would say this, that the Extension Branch in Ontario emphasize the training of men for farm management.

Senator McDONALD (*Kings*): That is, you are turning your "reps" into farm managers?

Dr. PATTERSON: Yes, and it would have to be on job training. We have been having short courses on farm management for the reps, at intervals and working out progress operations directly with the reps. We have suggested to each representative that he take on ten or twelve farms in the local community and see about the filing of accounts and following them through. We will analyze the accounts and give these people summaries and recommendations at the end of the year; and possibly through the year, if it is considered desirable, we may bring in a short course. We teach the general principles of farm management and build up interest to a point where they will keep going until they begin to get the reports back. The reps are able to interest farmers in this work, and a lot of them are doing a very good job. They also know in general some of these rules of thumb which we have established. A man learns that he should be able to produce the average yield of his county, which we work out statistically. In Bruce county we have a representative who spends most of his time on farm management material. When the returns are complete the reports and recommendations are prepared and the reps take them back to the farmers and discuss with them the problems and the changes they are going to make. Of course, the man has to have the confidence of the farm people he is working with. I think a lot of our representatives have that, but they are going to need help and coaching, and a lot of help from the technical experts.

There are 54 offices in the counties and districts in the province, each of which is under the charge of an agricultural representative, and most of them served by an assistant or associate agricultural representative whose prime duty is to look after the greatly increased enrolment in junior work.

The Department places great emphasis on the development of the junior farmer and 4-H club programmes because it is felt that through these mediums much can be done to assist those who will eventually be assuming the responsibility of farms in the near future in meeting the various problems as they arise. The 4-H Club programme emphasizes a full list of projects in agriculture, as well as a complete homemaking club programme for girls. This latter programme, along with the senior activities carried on for farm women by the Home Economics Service, is designed primarily to provide a better home life for our rural people.

In recent years specialized services have been added to the Extension Branch to meet particular needs. In addition to the Agricultural Representative and Home Economics Service, the Extension Branch now includes an Agricultural Engineering Service, Fruit and Vegetable Extension Service and a Tobacco Extension Service. Also, numerous specialists attached to particular departments of the various educational institutions and branches work in close liaison with the Extension Branch personnel to provide information and assistance to farmers with special problems.

All other branches of the Ontario Department of Agriculture provide services to the farmers and farm communities, and all are designed to assist and preserve the rural way of life at as high a level as possible. That is the general programme we have. In addition to that we have recognized this problem of the people in the grass economy and the problem you have in getting a big enough unit there to make a worthwhile living. Part of the

problem is to find enterprises suited to a grass economy. In the area having over 50 per cent of the farms with gross incomes lower than \$2,500, grass is the main crop suited. This means cattle or sheep. Sheep do not seem to be a common solution sought by people in this area. Where wholemilk markets exist, this area seems to be able to make a good income per farm from dairying provided management is adequate. There is a long time trend to increase the milk going to wholemilk outlets in Ontario.

This is a table of the Dairy Herd Improvement Association. It indicates that there is a lot of variation in the way the farms are run.

NORTHERN ONTARIO

Wholemilk Herds

	Average of 55 Herds	Herds with HIGH net Returns	Herds with LOW net Returns
Net returns per herd	\$ 600	2503	Loss 1745
Milk production per cow	lbs. 7258	7820	6020
Feed cost per 100 lbs. of milk ..	\$ 2.25	1.83	3.29
Man hrs. per cow.	hrs. 118	104	136
Man hrs. per cwts. of milk	hrs. 1.6	1.3	2.3
Cwts. of milk Sold per \$100 investment	Cwts. 17	17	11
Milking cows	no. 21	23	19
Average price received	\$ 4.89	4.98	5.09
Cost per 100 lbs. milk	\$ 4.47	3.52	6.67

On an average, our whole milk men in the North are able to make a reasonable living and they are part of the problem area. But of course your whole milk markets in the north central part of Ontario are rather limited, and this can only help a few out of the dilemma.

We found that a farm output of \$5,000 per man should give a labour income of \$1,000 or a return to labour and capital (farm income) of about \$2,500 per year. One-fifth of the 386 operators achieved this standard or better.

Among the more successful operators, the average farm size was large, and few operated less than 300 acres. With a normal amount of rough land, this was at least 200 adjusted acres of which 100 acres was in crop and hay.

Labour accomplishment was high. Each man handled an average of 70 acres of crop and hay plus 70 beef animals of all sizes or their equivalent in other livestock. This is 138 adjusted acres plus 37 animal units or a total of 289 man worked units per man.

That is a little above the average for all of Ontario.

Capital use was better than average. One of the problems with beef is that it has a slow rate of turnover, and it is rather a tough enterprise with which to build up a good income.

Farm output equalled investment in four years compared with six years for the 386 farms in the study. Good capital turnover for other types of farming is less than three years.

Capital use improved with: (a) Using cheaper farms for cow-calf production; (b) purchasing feeders; (c) more intensive secondary enterprises. In other words, they did not rely too much on beef.

Non-beef income was substantial. On all farms, 75 per cent of the livestock was beef, whereas on the most successful only two-thirds was beef and 54 per cent of the income came from milk, hogs, poultry, crops, etc.

The specialized beef farms with more than 85 per cent of the income from beef were able to obtain average earnings with less crops and manpower, but with considerably more land and greater investment.

Northern farms producing feeder cattle obtained average earnings on much larger but less expensive farms and less labour. The earnings of the most successful were, however, limited by disadvantages in the production of non-beef products.

On beef farms we find that the return to labour and investment per acre is about \$15 from beef as compared to about \$30 from processed milk and \$60 from hogs or whole milk.

The CHAIRMAN: I think you have covered this matter so thoroughly that it is very difficult to find a question to ask, Dr. Patterson, but I would ask just one question. Do you find the federal farm improvement loan used in Ontario to any extent, and is it found to be of assistance.

Dr. PATTERSON: It is used a great deal. That was a good question. On the other hand, whether it is of any assistance is a little different, because it has enabled us to get into one of the situations, one of the Senators referred to, where you have too much investment in machinery built up on some of these small farms, and then they get into trouble.

Senator HORNER: Is TB testing of cattle pretty well covered throughout the entire province?

Dr. PATTERSON: Yes. We are pretty well along in the area of brucellosis, too.

Senator HORNER: Are you finding any reaction in Ontario?

Dr. PATTERSON: Referring to TB again?

Senator HORNER: Yes.

Dr. PATTERSON: No, very little reaction—very few.

Senator TAYLOR (*Westmorland*): Are you having much trouble in clearing up brucellosis?

Dr. PATTERSON: Well, not much trouble.

Senator TAYLOR (*Westmorland*): Mostly trouble in milk sheds?

Dr. PATTERSON: Yes. Of course beef men don't always approve of brucellosis testing, but it is being done. I would not say it is too big a problem—nothing that can't be handled anyway.

Senator TAYLOR (*Westmorland*): Coming back to this junior farm settlement loan, that is the only farm loan provincial plan that you have, is that right?

Dr. PATTERSON: Yes.

The CHAIRMAN: I want to express on behalf of all members of this committee our great appreciation of the brief given by these two gentlemen, Dr. Richards and Dr. Patterson. I think they have given lucid explanations, and I think they have been about the best briefs we have had so far.

I should like to refer to the question of bringing in our final interim report on the small farm problem, and would like the Steering Committee to meet if possible at 2 o'clock. It would take a very short time to discuss the matter, and I would be glad if the Steering Committee would meet at that time for that purpose.

Whereupon the meeting adjourned.

2nd Session, 24th Parliament, 1959
THE SENATE OF CANADA

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PROCEEDINGS
OF THE
SPECIAL COMMITTEE OF THE SENATE
ON
LAND USE IN CANADA

No. 12



WEDNESDAY, JULY 8, 1959

The Honourable Arthur M. Pearson, Chairman

REPORT OF THE COMMITTEE

SPECIAL COMMITTEE OF THE SENATE ON LAND USE IN CANADA

The Honourable Arthur M. Pearson, Chairman

The Honourable Senators

Barbour	Higgins	Power
Basha	Horner	Smith (<i>Kamloops</i>)
Bois	Inman	Stambaugh
Boucher	Leger	Taylor (<i>Norfolk</i>)
Bradette	Leonard	Taylor (<i>Westmorland</i>)
Buchanan	MacDonald	Turgeon
Cameron	McDonald	Vaillancourt
Crerar	McGrand	Wall
Emerson	Methot	White—31.
Gladstone	Molson	
Golding	Pearson	

(Quorum 7)

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate.

TUESDAY, February 17, 1959.

"The Honourable Senator Aseltine moved, seconded by the Honourable Senator Macdonald, P.C.—

That a Special Committee of the Senate be appointed to consider and report on land use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators, Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White.

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.

After debate, and—

The question being put on the motion, it was—

Resolved in the affirmative."

J. F. MacNEILL,
Clerk of the Senate.

MINUTES OF PROCEEDINGS

WEDNESDAY, July 8, 1959.

Pursuant to adjournment and notice the Special Committee of the Senate on Land Use in Canada, met this day at 10.00 A.M.

Present: The Honourable Senators:— Pearson, Chairman; Bois, Deputy Chairman; Gladstone, Higgins, Horner, Inman, MacDonald, McDonald, McGrand, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*) and Taylor (*Westmorland*).

In attendance: Mr. Ralph Stutt, Special consultant to the Committee.

The Committee considered a draft report prepared by the Steering Committee.

After discussion, and with several amendments, the report was adopted.

At 12.30 P.M. the Committee adjourned.

ATTEST.

JAMES D. MACDONALD,
Clerk of the Committee.

REPORT OF THE COMMITTEE

WEDNESDAY, July 8, 1959.

The Special Committee of the Senate on Land Use in Canada make their second report, as follows:—

I. ORDER OF REFERENCE

The following resolution was adopted on Tuesday, February 17, 1959, by the Senate:—

“That a Special Committee of the Senate be appointed to consider and report on Land Use in Canada and what should be done to ensure that our land resources are most effectively utilized for the benefit of the Canadian economy and the Canadian people and, in particular, to increase both agricultural production and the incomes of those engaged in it;

That the Committee be composed of the Honourable Senators Barbour, Basha, Bois, Boucher, Bradette, Buchanan, Cameron, Crerar, Emerson, Gladstone, Golding, Higgins, Horner, Inman, Leger, Leonard, MacDonald, McDonald, McGrand, Methot, Molson, Pearson, Power, Smith (*Kamloops*), Stambaugh, Taylor (*Norfolk*), Taylor (*Westmorland*), Turgeon, Vaillancourt, Wall and White;

That the Committee have power to engage the services of such counsel and technical and clerical personnel as may be necessary for the purpose of the inquiry;

That the Committee have power to send for persons, papers and records, to sit during sittings and adjournments of the Senate, and to report from time to time;

That the evidence taken on the subject during the three preceding sessions be referred to the Committee.”

A Steering Committee was appointed as follows:—The Honourable Senators Pearson, Chairman; Bois, Deputy Chairman; Basha, McDonald, Power, Taylor (*Norfolk*), Taylor (*Westmorland*) and Wall.

The scope of the inquiry for this session was confined to a consideration of the problems of the small uneconomic farm unit with the general framework of the subject of land use. The particular plan of the Committee was to study the situation respecting small farms and particularly the welfare of the farm family in which full-time work is directed to agricultural production in the hope of attaining an adequate living. The term “small farm problem” was taken to mean the substantial number¹ of farms in Canada whose economic position was believed to be completely unsatisfactory and constituted a public problem; and who could not hope to achieve an adequate standard of living

¹The 1951 Census of Agriculture reported 235,117 farms with value of farm products sold in 1950 of \$250 to \$2,499 excluding part-time farms. The 1956 Census of Agriculture reported 120,242 farms as “non-commercial” with potential annual production of less than \$1,200. The \$1,200 benchmark is believed to represent the lower limit of these farms which provide substantial employment to the operator. While an income of \$1,200 is clearly below desirable living standards it does represent a farm unit which has passed the subsistence stage.

without help and action programs by the governments. The concern thus lies within the context of inadequacy of farm income to provide the amenities of life from the particular farm unit.

II. COMMITTEE PROCEDURE

A procedure was adopted which was similar to that used during the previous sessions of the Committee. Witnesses were invited to give reports related specifically to the small farm problem. These included some federal agricultural government officials, the provincial ministers or deputy ministers of agriculture in each province, the leaders of national farm organizations, one provincial cooperative organization and one forest industry association. This approach was taken with the thought in mind of obtaining a national, regional and local picture of the problem. A total of 15 meetings were held at which 17 witnesses were heard. These witnesses were supported by 24 other persons at 7 of these different meetings.

The list of witnesses is shown in the appendix. A total of 469 pages were recorded and published. Other reference material was provided to the Committee by the witnesses.

III. REVIEW OF SUBMISSIONS

The evidence presented to the Committee showed real concern over the plight of the farmer on small farm units. Public interest in the welfare of small farmers who operate farms on a full-time basis and whose farms are too small to provide an acceptable level of living, was apparent. It may be taken as a broad premise, based on the submissions, that there is a general unwillingness to permit levels of material well-being of any individual or group in our society to fall below certain minimum standards, irrespective of the cause. In the interest of fairness and justice, the briefs pointed out, the small farm group as outlined above, although largely outside the framework of the commercial agricultural economy, should be put in the position of sharing in the economic growth of the country. Because of the nature of the problem it should be treated through collective action by governments at all levels and with a public purpose in mind involving ethical as well as pure economic considerations. More and more people in our society are concerning themselves with human welfare.

(a) Defining the problem, its extent and location.

The term "small farm" has been used to cover a wide group of farm units. Various terms have been used to describe these farms such as low-income uneconomic farm units, small scale, part-time, subsistence, residential and others. In the main they are not considered to be in the true commercial class of farms and they produce a relatively small part of our total marketed farm product. These farms are operated by a large group of farmers who for various reasons have been unable to become efficient commercial operators.

In Canada, we have many small farms which from a commercial viewpoint, do not pose any serious problems and which may even represent a desirable type. These include among others (1) part-time farms (those on which the farm income is less than income from other off-farm sources, where the farm income is low and the operator works at other jobs for a substantial part of the year), (2) residential farms and (3) farms operated by elderly persons. These types are often found close to urban centres having alternative em-

ployment opportunities, modern transportation facilities and other amenities available to urban dwellers. Major problems in these urban fringe areas are in the field of land use, in maintaining community organizations and related service facilities.

If the *total* income of the farmer and his family, from non-farm employment and from other sources is insufficient for the usual family needs for a modern level of living, the situation presents important social and economic problems. When these problems persist in any area, slum conditions are evident and result in a wastage of natural and human resources.

The problem of the small farm may be viewed as a consideration of those farms on which the volume of business is usually inadequate to attain the level of living desired by the average farm family. Stated another way, low farm income potential is the critical measure when determining the extent of the small farm problem. The briefs pointed out that size of farm in terms of total acres, acres of cropland, numbers of livestock or any other material measure is not a satisfactory way to identify the problem small farm. The problem has been aggravated by our changing way of life and an ever-increasing content of material needs, by the mechanization and commercialization of our agriculture.

All the evidence presented to the Committee indicates that it is impossible, with our present knowledge, to give a precise answer to the number of problem small farms in Canada and in the different provinces. There are three main reasons for this conclusion: First, there is no general agreement as to what constitutes a minimum acceptable standard of living; second, full information with respect to off-farm income, that is income obtained from work off the farm, is not available; and third, statistics are not available in sufficient detail to show the number and location of these farms.

Many witnesses used information from the 1951 and 1956 Censuses of Agriculture to indicate, in a general way, the number of small farms and their location. The censuses give data for Canada, each province and each census division. The measures used were (1) gross value of sales of farm products, (2) value of farm production, (3) capital investment in farms and (4) size of farm in term of acres. Classified on the basis of gross value of sales of farm products (1951 census) these data indicated that 38 per cent of all farms in Canada had sales valued between \$250 and \$2,500 in 1950. These did not include the 10 per cent of all farms which were classed as part-time farms (sales between \$250 and \$1,199, the operator having worked more than 100 days off the farm and farm income was smaller than income from other sources), and the 14 per cent of all farms which were classed as small scale farms and reported value of farm products sold in 1950 of less than \$250. Most of the small-scale farms were very small in size. These were classed in the census as farms if the holding consisted of three acres or more or from one to three acres with agricultural production in 1950 valued at \$250 or more and if agricultural operations were carried out. These are not really farms at all when considered in the usual sense.

It was pointed out to the Committee that the farms having sales between \$250 and \$2,500 (excluding part-time and small-scale farms) constituted the main small farm problem group. In 1950, on a regional basis, they represented

34 per cent of all farms in the Atlantic Provinces; 35 per cent in the Central Provinces; 43 per cent in the Prairie Provinces; and 38 per cent in British Columbia.

An economic classification of farms was included in the 1956 Census of Agriculture. According to this classification 21 per cent of all farms in Canada are non-commercial farms having an estimated potential gross annual value of production of crops and livestock (including farm products consumed in the home) of less than \$1,200. In all of Canada there were 120,242 of these farms in 1956. On a provincial and regional basis they made up the following percentages of all farms:

	Number of non-commercial farms	Per cent of all farms
Newfoundland.....	1,857	78
Prince Edward Island.....	2,468	26
Nova Scotia.....	12,945	61
New Brunswick.....	13,071	59
Atlantic Provinces.....	30,341	55
Quebec.....	34,241	28
Ontario.....	26,786	19
Central Provinces.....	61,027	23
Manitoba.....	5,555	11
Saskatchewan.....	4,487	4
Alberta.....	7,337	9
Prairie Provinces.....	17,379	8
British Columbia.....	11,482	46
CANADA.....	120,242 ¹	21

¹Includes Yukon and Northwest Territories.

Source: Dominion Bureau of Statistics, Census of Agriculture, 1956.

These figures might be reasonably adjusted slightly upwards in the Prairie Provinces for unprofitable small commercial farms and downwards in areas other than the Prairie Provinces for profitable small commercial farm businesses.

On the basis of these and other data, and taking account of the limitations of the measures, some witnesses concluded that from one-third to one-half of our farms are too small and do not possess enough resources to produce a satisfactory income to provide a reasonable level of living. The evidence indicated a heavier weighting of small farms most likely in the problem group in sections of the Atlantic and Central provinces. It must be recalled, however, that off-farm sources of incomes are not included in these estimates and in

many sections of the country income from the primary industries of forestry, trapping, fur farming, and fishing are of prime importance in addition to urban industrial employment and other income sources. But in any case the magnitude of the problem is of such extent as to involve a large proportion of the farm population.

(b) Interrelationship of the farm problem with the small farm problem.

The evolution which has been taking place in farming across Canada in mechanization and technology and the application of more capital have resulted in a higher degree of efficiency and more production. This series of changes has led to an increase in size of farm and a drop in the number of workers on the land. The problem of the commercial farmer and the main aspect of the "farm problem" at the present time would appear to be production in excess of the amount that can be sold at prices which is believed to be fair and just. The interest of members of society, as it related primarily to our commercial farmers, is a deep concern for the assurance of a continuous and adequate supply of food and other farm products to meet the consumer's needs. This brings up the need for conservation of soil, water and other natural resources and for continuing research and education, with a view to further advances in the field of agricultural technology, and the problems of marketing.

Technological development, however, boils down in essence to fewer farmers and thus the "small farm problem" is a part of the over-all "farm problem". The current view of organized farmers is that the problems of the commercial and the small farm should be treated through a blend of action by third parties such as governments or co-operatives, since the considerations involve moral facets relating to justice and fairness as well as economic factors of material well-being. We do not want to rely on the mechanism of economic forces alone to eliminate or squeeze out the low income farmer for a practical and satisfactory answer to this segment of the problem.

(c) Cause of the small farm problem

The small farm problem results from a lag in adjustments in the agricultural sector of the economy. The rapid changes in technology which have taken place in Canadian agriculture have served to enlarge and to make the problems more acute.

The presentation of the Government of the Province of British Columbia lists the most important and basic changes which have accompanied technological advances and mechanization and revolutionized the character of the agricultural economy, as follows:—

- "(1) the shift from farming as a way of life to farming as a business,
- (2) the shift of farming from an art to a science,
- (3) change from diversification to specialization,
- (4) change from small scale to assembly line character,
- (5) a greater responsibility in management,
- (6) tremendous increases in operating costs,
- (7) changes in farm living standards."

Most of the witnesses mentioned that the basic reason for farms with a small volume of business stems mainly from the inadequacy of agricultural resources. Closely connected with this is the use to which the land is put.

This is pointed out in the brief from the Ontario Department of Agriculture in this manner: "There are small farms and a small farm problem in all parts of the Province, but it is most acute on the Canadian Shield, and on other high land with rough terrain. This is largely explained by the soils and climate and the limits these place on crops that can be grown". Much of it is the result of settlement policies and patterns established in the past and circumstances beyond the control of farmers. Often there has been a concentration and extension of settlement beyond the possibilities of establishment of economic units.

Modern farming requires a large capital investment in land and equipment as well as fairly large cash outlays for operating expenses. As the usual spread between cost per unit and price per unit is rather small the critical problem of limited output makes the small farm particularly vulnerable because of its low volume of production.

Some briefs pointed out that part of the problem in many cases is due to poor farming methods and practices, poor planning and management and unawareness of land use capabilities, lack of initiative and limited alternative opportunities. This is really a part of the whole educational problem. In the past probably our extension programs have been aimed too much at the needs of the commercial farmer with respect to production matters and not enough to matters of good farm planning and management.

In some cases small farms persist on the fringe of the agricultural frontier because of the conflict of operator and family labour between agriculture and other primary industries such as lumbering. The need of off-farm employment to obtain enough income for family living and farm development is often at variance with a desirable concentration on farm enlargement. If the physical resources of the area are too poor to permit desirable land use and a satisfactory farm income then this situation might persist for a long time.

The persistence of depressed income conditions on farms which have inadequate income levels leads to inertia, apathy and immobility of farm people and a lack of enterprise and hope. Whenever there is a fairly large concentration of low income farms other economic and social problems develop. The area frequently takes on the characteristics of a slum. The services of the community reflect the situation. School and church facilities are often poor, community life generally suffers and roads and other services are neglected or lacking.

All of the above causes and conditions were mentioned in the presentations to the Committee. The briefs indicate also that low-income farms are found to a greater or lesser degree in all sections of Canada. Most of the same causes of small farms are found throughout the country but with different emphasis. One of the presentations from a Maritime Province states: "The persistence of the small farm and its attendant problems can be attributed to a great variety of factors such as size of operation, available land area, soil, topography, capital, management, etc. These factors may appear singly or in combinations, but a definite pattern is difficult to define for, in many cases, one can find prosperous farmers side-by-side with so-called low-income operators". In the case of the Prairie Provinces, one of the briefs states the situation in these terms: "Non-economic units in this Province have stemmed from a number of basic causes. Low average yields (mainly due to moisture limitation), the

long freight hauls, the export market, original settlement pattern, lack of adequate capital resources, immobility of labour resources in agriculture and restricted production alternatives are among the more important sources of the problem". One of the witnesses grouped the cause of small farms under three main divisions namely (1) historical, (2) physical and (3) economic. Another Prairie Province witness said: "Problems exist today mainly in the areas where settlers were permitted to settle on land unsuitable for grain production. . . . We contend that farms both in respect to size and land use must bear very definite relationship to the economic conditions and environment of the area in which they are located".

(d) Problem areas

It was pointed out that specific types of small farms can be identified but that one need not be concerned with some of these types. Part-time and residential farms of small holdings, in general, are viewed as desirable types.

In the case of the part-time farms the sale of farm products may not be large. But coupled with a substantial part of the income from off-farm employment and with the quality of country residence, this type is probably a desirable way of life. With decreasing hours of work in industry and the resulting increased leisure and recreational time, this type permits many intangible benefits. These benefits also accrue to small farms which can be classed as residential farms where the occupants have full-time city or town jobs and raise a few farm products purely as a hobby and prefer to live in the country. There are also small farms which are operated by older people in semi-retirement. These farms enable these persons, who probably have farmed all their lives, to remain where they wish and to work at farm tasks at their leisure. They probably have no desire nor any particular need to increase the scale of their operations.

There are others on small farms who wish to have a great deal of independence and at the same time are not concerned about getting the latest conveniences and therefore prefer a small scale operation. Somewhat similar to this type is the small scale farmer who has limited ability and responsibility and is really not capable of operating an efficient unit. For him, the small farm unit provides a desirable place and way to make a living commensurate with his standard.

Because of the high capital requirements in modern day farming, many beginning their farming career must start on a modest scale. If they are established on farms with a fairly high potential productive capacity they can usually be improved through regular channels of assistance to all commercial farmers.

It is the balance of the small farms, (depending on the basis used to determine the extent), which represent full-time or near full-time work and rely on the income from the farm, that constitute the "small farm problem". Another condition of this group relates to the desire of the farm operators to overcome their problems. These might be contrasted with operators of small farms who are unable to operate larger scale farms because of old age, poor health, etc., and those operators who are willing to accept a low standard of living and wish to remain on the farm as a way of life.

The problem of the small full-time or near full-time farms derives from two main causes: (1) low farm income and (2) instability of farm income. In the case of the part-time, residential and other small farms, the problems are sociological and institutional. The economic problems are mainly in the industrial employment field. When families and communities making up the small full-time farm group have failed to meet new conditions of mechanization and technology as they have occurred and to increase income from the farm or elsewhere, yet stayed on their farms through lack of the means to change or through attachment to their homes, or both, the problem has grown increasingly acute.

(e) Objectives of programs for small farms.

There were certain explicit objectives which ran through all the submissions with a high degree of similarity and agreement. These are outlined in one of the presentations as follows:

- (1) the improvement of the level of living of farm families on low production farms;
- (2) the improvement of the income position of farmers (this includes income from non-farm sources also);
- (3) the consolidation or integration of small farms into larger and more productive units;
- (4) facilitating the transfer of part of the agricultural labour force from agriculture to other occupations;
- (5) the maintenance of the family farm;
- (6) the maintenance of the rural community;
- (7) a better use of both human and natural resources.

Further to these objectives, which express the central framework in an overall program to alleviate the problem of the small farm, several other important objectives were pointed out in the briefs. Some of these objectives are (1) a satisfactory adjustment in the use of poor lands from agriculture to other uses such as forestry, grazing and recreation. The rigidity of institutional factors and other difficulties in this transfer were pointed up by certain statistical data for Ontario and Nova Scotia on the process of abandonment of farm land and the reverting of land to non-use rather than other appropriate uses. (2) In certain regions of the country, other major land use and occupations such as lumbering, pulpwood cutting, farm woodlots and fishing should be recognized as the best alternative use either in place of or as complementary to agriculture. (3) Help to low income farmers should be offered on the basis of voluntary participation and the final management decisions should rest with the farmer. (4) A co-ordinated federal-provincial set-up should be the basis for action, notwithstanding the fact that land and water resources are under the control of each province. The federal government must be concerned with the best use and conservation of these resources since they are basic to the needs of the nation.

There was also general agreement in the belief that rational policies and programs consistent with the objectives, which have been stated, might be organized and developed under at least three divisions. These were stated in one case in the following manner:

- (1) better land use,
- (2) creation of an economic climate designed to facilitate and improve off-farm income and employment conditions,
- (3) more efficient levels of production on farms remaining in agriculture.

Certain policies and programs designed to meet the needs of the majority of commercial farmers were not believed to be appropriate to improve the lot of the low-income farmer. These included policies relating to price support, crop insurance, marketing, extension of agricultural production information and the usual formal types of credit. Thus, most briefs stressed the need of new or particular types of programs aimed directly at the low-income farm. It was also stressed repeatedly that the problems of the low-income farmer could not be met by any one program or administration. In addition to the need for federal and provincial co-operation, as has been mentioned, many types of services and separate administrations would be involved. The main need would be flexibility of policies and programs adaptable to co-ordination of effort, continuous research, study and service, and any particular needs of each province.

(f) Solutions proposed.

The need for the development of a national land use policy was probably the most frequent and strongly advocated proposal. As a prerequisite, the conducting of land use surveys to provide the information on the best uses of specific areas of land and on problems or prospective problems arising from existing use was stressed. These would enable the study of proper use of land by local land use committees and an economic classification of land for alternative uses of poor lands. These studies would determine: (1) areas which should continue in agricultural production, (2) soil and water conservation, drainage and other types of development measures in which the expenditure of public funds is justified by economic conditions, (3) delineation of areas where movement of resources out of agriculture is deemed best and (4) areas to which non-agricultural activities might be attracted. This practice of having local people study their conditions and decide on the solutions is understood to be the basic philosophy of the Rural Development Program in the United States. Members of the Committee expressed keen interest in this Program and would like to obtain information on it. It might provide valuable guides to an appropriate program in Canada.

Most briefs envisaged federal enabling legislation followed by federal-provincial action programs. Federal enabling legislation mentioned was a "Rural Planning and Development Act"; a "National Land Use Act"; a "National Soil and Water Conservation Act"; and a "Federal Conservation and Reclamation Act". Most had in mind an Act of sufficient flexibility that it could be applied to any section of Canada, followed by complementary provincial legislation and a co-operative program of land use. It would be accompanied by some means of financing to help the small farms. The proposed legislation would include the work of the present Prairie Farm Rehabilitation and Maritime Marshland Reclamation Administrations. It would provide authority for the federal government to participate financially with the provinces and possibly the municipalities in approved projects, such as reclamation of problematic prairie lands, conservation, irrigation, drainage, dyking, marshland rehabilitation, river erosion and other erosion problems; watershed

development, woodlot management, land clearing, development of community pastures, and any other project for the benefit of an agricultural or wooded area.

One possibility of speeding up the process of land use adjustment was suggested in the brief from the Ontario Department of Agriculture. Reference to this was made as follows: "Land purchase for forestry or grazing with older operators given the right to sell and still live out life span on the farm". It is understood that this method is available in the State of New York.

In the area of land use policy, a strong request was made in one presentation to investigate the possibility of the Federal Government introducing some financial incentive to private owners to certify land under the National Tree Farm Movement. This is a voluntary movement with the purpose in mind of encouraging the conversion of poor agricultural land to the production of tree crops. At present this is promoted through a forest management educational program. The major problems involved in the conversion of this class of land to forest use are: (1) the non-productive waiting period for a merchantable tree crop, (2) land ownership, (3) lack of credit for the acquisition of a satisfactory forest crop unit, and (4) taxation policies which are largely based on an annual grain crop yield base and tend to discourage the production of timber crops.

Another main proposal related to the need for a program of supervision or the application of good farm business principles and management in conjunction with more credit of appropriate types. Traditional credit services have proven inadequate to meet the need of farmers with limited resources. Some witnesses pointed out that the only farmers who can get credit are the ones who need it the least.

Many briefs mentioned the lack of sufficient credit to small continuing farmers with which to finance desired expansion or adjustment. Increased activity by provincial credit agencies in recent years is a reflection of the desire on the part of small uneconomic farm units to expand the scope of their operations. In the case of loans for short duration favourable comment was made of the *Farm Improvement Loans Act*. The expansion of loaning in recent years under the Canadian Farm Loan Board was noted. But stringent features of the Canadian Farm Loan Board came in for a lot of criticism. One particular matter was the lack of recognition of the Board of the role of the farm woodlot as a source of increased farm income under a program of forest management. It was said that "little account was taken of the woodlot as a source of possible annual revenue or as a considerable factor in appraising the soundness of the over-all (farm) operation".

The success of the supervised credit program of the Veteran's Land Administration was cited as a model of assistance to operators of small farms. Guides and conditions were proposed in some briefs. These included: (1) careful selection of applicants, (2) a sufficient amount of credit to lift the status of a low-income farm to an economic sized unit with adequate annual income, (3) provision of competent planning and supervisory services, (4) repayment provisions with flexibility related to the inherent productive capacity of the expanded farm.

The provision of supervised management is part of a general maintenance and improvement in the educational process, which needs to be stressed in

a program for farm people. Time after time mention was made of the fine work of the universities and agricultural colleges in providing good scientific and technical knowledge through regular courses and extension work. Some felt that all young farm people contemplating farming as their life occupation should be assisted and even asked to obtain sound basic scientific training in agriculture. Special emphasis was laid on the need for farm management training. Present-day farming requires technological and economic knowledge in order to operate successfully.

Associated with the need of scientific knowledge for farm people, most witnesses stressed the need for more research. Most emphasized the need for more economic studies in the production and marketing of agricultural products, establishment of the economic size of farm business, rural zoning, type of farming, rural reorganization and adjustment, rural-urban migration and many other areas. It was stressed in most briefs that research information now available at the universities and the federal and provincial departments of agriculture should be co-ordinated.

In the creation of an economic climate designed to facilitate and increase off-farm income and employment conditions, a number of proposals were made. Since low-income farms produce so little for sale, the consolidation of these farms and the displacing of farm families would not materially affect the output situation and surpluses. It would not be sufficient to offset to any extent the continuing surge in output per acre, per animal unit and per worker. The main gain to the nation of a reduction in the number of small inefficient farms would largely consist of an improvement in levels of living, accruing to those making the shift, through improved income distribution. Some increased production in the non-agricultural sector to which the low-income farmers move might be expected. This suggests the need to make sure that the families shifted are really better off in non-farm employment.

One witness said that "most of the young people are leaving the farm but the parents are remaining. Many of these people are reluctant to leave because they feel that they have insufficient qualifications for employment other than farming." Several briefs pointed out that, in general, the best course would be to step up arrangements to train young farm people for skilled work and locate the right sort of jobs for them. This would accompany a policy of leaving many families on present small farms as part-time or even residential farms, certainly in the case of older farm operators.

Associated with this course of action would be the creation of favourable conditions in industry and particularly in decentralization of industry so as to encourage people to move off the farm. In the case of part-time farms, off-farm employment would be a means of supplementing their farm income.

Proposals to increase off-farm income and employment require opportunities for jobs and informational and educational aids. Types of assistance in this regard, which may be on either a full-time or part-time basis, were stressed in all the presentations. These types of assistance were:

- (1) encouragement to industry, to establish in rural communities to provide off-farm employment opportunities. This would allow some family groups to remain intact in their familiar environment. This

type of development is important from the standpoint of the employer who depends on a seasonal labour force. If the industry fits in with favourable local features and the employment does not conflict with the main seasonal farm tasks, these complementary undertakings can yield satisfactory livelihoods for many families.

- (2) provision of vocational and technical training in rural areas to improve the skills of farm people and increase their chance of finding better industrial jobs. This program might be provided along the same lines as current vocational courses in agriculture.
- (3) expansion and improvement of present employment services in rural areas which would inform low-income farmers and their families of all employment opportunities. The labour supply on these farms might also be more regularly reported and categorized.
- (4) special assistance or resettlement compensation to help farm families move to appropriate employment areas. Financial assistance might be provided for part of the familiarization period and for counselling.

Other suggested aids include: (a) development of a community planning program by all sections of the community such as business, schools, churches, farms, financial, etc., to assist people out of agriculture, and (b) unemployment insurance for farm workers to provide added income security.

Some presentations indicated that the recreational aspect of land use has not been seriously investigated and developed in Canada. The brief from the Department of Agriculture and Marketing in Nova Scotia referred to the commercial value and use of certain grades of land, which is appropriate in many areas, in this manner: "Well-planned recreational use of our land and water areas could well provide a pleasant and economically rewarding return for terrain which is definitely submarginal for agricultural purposes . . . The small farm operator, through the use of recreational facilities, could supplement his income substantially." The increasing need for a rational appraisal of the growth in population, the basic shifts of age groups within the population, the increase in leisure time because of shorter work hours and earlier retirement, increased urbanization and improved transportation facilities.

Two briefs suggested that there should be a national agency or special federal authority to deal specifically with the small farm problem, to study its implications and evolve a policy by which adjustments could be carried out. In one case, this national agency was proposed in conjunction with a federal administration which would deal directly with existing problems of the use and conservation of our land resources. Here the national agency would deal primarily with the economic and social aspects of the small farm problem rather than the technical. It was stated in the other brief that the primary function of the special authority would be development and rehabilitation, which intimates a combination of both functions of the two separate administrations proposed in the first brief.

Both briefs implied federal-provincial co-operation in a program, flexible in nature and adaptable to the needs of each province; access to financial resources; a centre for achieving co-ordinated federal-provincial action and gathering of information; facilities and staff to undertake research in the economic and social phases of the problem; and active participation with inter-departmental and advisory committees. In the case of Nova Scotia, the

Minister of Agriculture and Marketing suggested that ... "A development program might be started in northern or eastern Nova Scotia on a restricted scale as a pilot program".

There was general commendation throughout the briefs of certain federal assistance programs which have been in operation for varying periods of time. Presentations from the Maritime Provinces mentioned specifically (1) the federal-provincial fertilizer and lime program (2) federal freight assistance on the railroad movement of feed grain (3) the assistance to boy's and girl's 4-H Clubs (4) assistance for livestock improvement and promotion of good seed and horticultural development (5) survey, engineering and construction of the main protective works of dykes, aboiteaux and breakwaters under the Marshland Rehabilitation program, and (6) of more recent date, the organization and development of community pastures.

In Quebec, in addition to mention of the federal freight assistance on western feed grains and the excellent demonstration work of the Experimental Farms and Illustration Stations (now Research Branch), special reference was made to the provincial programs of the "Better Farming Competition" and the Drainage Service.

Reference was made to the fine work done in Western Canada by the Prairie Farm Rehabilitation Administration. This included all the phases of the program such as small and large water project developments, land utilization projects, particularly the removal of lands unsuitable for cultivation and their development as community pastures for livestock production, and the resettlement of farmers from drought areas. The financial assistance provided to Western farmers under the *Prairie Farm Assistance Act* was cited as a means to assure a minimum income to meet pressing expenses in years of crop failure.

In summary, general agreement was evidenced by provincial bodies in these and other federal policies and measures which contribute directly or indirectly to better conservation and use of land and to improvement in farm income. Provincial bodies not only wish them to be maintained but to be enlarged and expanded to increase the efficiency of production and incomes of those wishing to remain on farms, and to aid in the transfer of the under-employed farm people to industry.

IV. RECOMMENDATIONS

The conditions which are common to small or low-income farms have been set out in this report from information presented to the Committee by organizations and individuals with a wide knowledge of the problems. These conditions are many and varied.

Basic to the solution of the small farm problem is an inventory and assessment of the land resources of Canada. The economic and social problems which arise in the use of land are acute when the capacity of the farm unit is inadequate and is unable to adjust to new situations. Considerable progress has been made in the classification of soils for agricultural purposes and the inventory of forested areas in Canada. In these and other important work, the Federal Government has participated with the Provinces.

Four recommendations made by this Committee during the last session dealt with land use problems. The Committee wishes to re-affirm its support of these recommendations in their original form as follows:

(1) That the soil survey being co-operatively carried out by the Federal Department of Agriculture, the Provincial Departments of Agriculture and the Colleges of Agriculture be speeded up and expanded not only in order to complete the soil mapping of the whole settled area of Canada, but also of the unsettled areas.

(2) That it be called to the attention of the proper authorities the need of a systematic land use survey based upon appropriate factors to provide for an economic classification of the land according to its use suitability.

(3) That the work of various agencies in the study and management of our water resources be expanded,—specifically that work relating to drainage and erosion problems, irrigation, levels of water-tables and present and likely future water requirements.

(4) That more emphasis be given studies which designate requirements respecting farm size, organization and practices according to the physical characteristics of the land and economic conditions which prevail.

In addition to the above, the following recommendations are presented for consideration:

(5) that a special body is instituted to assemble, co-ordinate and arrange for the dissemination to farmers of agricultural research done by the Federal and Provincial Departments of Agriculture, universities and agricultural colleges, and other research organizations.

(6) that an expanded extension service be inaugurated to deal with active farm planning, sound business principles and farm management for the alleviation of problems of the small uneconomic farm unit. These services are regarded as necessary conditions in the use of credit and the expansion of loans to farmers in the long, intermediate and short-term fields.

(7) that provision be made for an expanded program of vocational and technical training in rural areas.

(8) that governmental employment agencies improve and expand their services to facilitate employment of persons from low-income farm areas in off-farm jobs. Associated with this service we would urge the complete listing, categorizing, and reporting of the farm labour supply. A special counseling service should be instituted.

(9) that consideration be given to extension of re-settlement assistance to any farmer on a small uneconomic farm wishing to move to another area of employment, after due consideration of the existing farm potential and employment situation.

(10) that this Committee request the Federal Department of Agriculture to send a delegation to the United States to study and report on the Rural Development Program.

(11) that this Committee be reconstituted at the earliest possible date after the opening of the next Session of Parliament due to the great importance of proper land use in Canada.

All of which is respectfully submitted,

ARTHUR M. PEARSON,
Chairman.

APPENDIX

List of Witnesses Appearing Before the Special Committee of the Senate on
Land Use in Canada

1959 SESSION

*Printed Proceedings No. 1**Canada Department of Agriculture*

Dr. J. F. Booth, Director, Economics Division.

*Printed Proceedings No. 2**Canada Department of Agriculture*

Dr. J. G. Taggart, Deputy Minister.

Dr. J. F. Booth, Director, Economics Division.

Dr. M. E. Andal, Chief, Production Economics Section, Economics Division.

*Printed Proceedings No. 3**Canadian Agricultural Economics Society*

Dr. M. E. Andal, President.

Dr. W. E. Haviland, Vice-President.

Professor P. A. Wright, Executive Member.

*Printed Proceedings No. 4**Prince Edward Island Department of Agriculture*

The Honourable Eugene Cullen, Minister.

*Printed Proceedings No. 5**Ontario Forest Industries Association*

Mr. Gordon Godwin, Director.

Professor D. V. Love.

Mr. J. B. Matthews.

Mr. J. W. McNutt, Past-President.

Mr. D. R. Rogers, Director.

Mr. C. R. Mills, Manager.

Mr. S. F. Rook, Vice-President.

*Printed Proceedings No. 6**Interprovincial Farm Union Council*

Mr. Ed. Nelson, Vice-President and President of the Farmer's Union of Alberta.

Mr. James Patterson, Director of Public Relations.

Saskatchewan Department of Agriculture

The Honourable I. C. Nollet, Minister.

Mr. W. H. Horner, Deputy Minister.

Mr. Grant Mitchell, Research Economist.

*Printed Proceedings No. 7**La Cooperative Federee de Quebec*

Mr. Adelard Bellmarc, President.

Mr. Omer Deslauriers, Vice-President.

Mr. Raynald Ferron, General Manager.

Mr. Roger Perreault, Economist.

Alberta Department of Agriculture

The Honourable L. C. Halmrast, Minister.

*Printed Proceedings No. 8**Canadian Federation of Agriculture*

Dr. H. H. Hannam, President,

Mr. J. M. Bentley, 1st Vice-President.

Mr. Jean B. Lemoine, 2nd Vice-President.

Mr. E. A. Boden, Director, Saskatchewan Wheat Pool.

Mr. C. R. Belyea, Economist, Ontario Federation of Agriculture.

Mr. Roy Grant, Secretary, Maritime Federation of Agriculture.

Mr. J. M. Johnson, Director, C.F.A.

Mr. L. Laventure, Executive Member, Ontario Federation of Agriculture.

Mr. J. Ferguson, Past President, Ontario Federation of Agriculture.

Mr. David Kirk, Secretary, C.F.A.

Nova Scotia Department of Agriculture and Marketing

The Honourable E. D. Haliburton, Minister.

*Printed Proceedings No. 9.**British Columbia Department of Agriculture*

The Honourable M. P. Steacy, Minister.

New Brunswick Department of Agriculture

Mr. R. D. Gilbert, Deputy Minister.

*Printed Proceedings No. 10.**Manitoba Department of Agriculture and Conservation*

The Honourable E. F. Willis, Minister.

Mr. L. B. Kristjanson, Extension Economist.

Mr. J. Parker, Director, Soils and Crops Branch.

Printed Proceedings No. 11.

Ontario Department of Agriculture

Dr. H. L. Patterson, Director, Farm Economics and Statistics Branch.

Dr. N. R. Richards, Head, Department of Soils, Ontario Agricultural
College.

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